Monthly Labor Review

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Adult Men Not in the Labor Force

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor-in-Chief*

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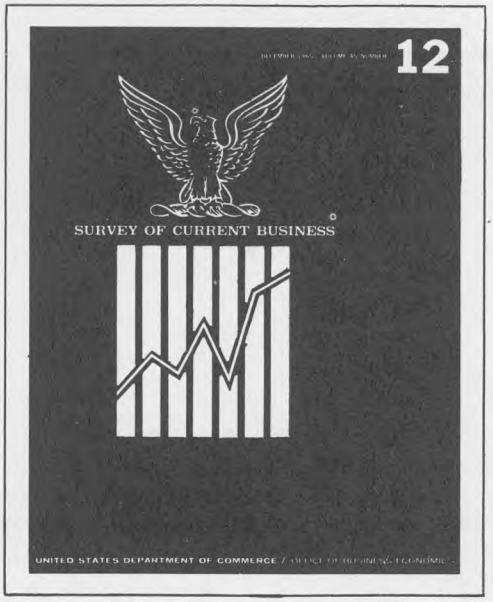

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The Labor Month in Review

Steps Toward Union Mergers

Two pairs of unions took merger votes in January, with differing results. The Mine, Mill and Smelter Workers voted to join the Steelworkers, while the Stereotypers and Electrotypers rejected the proposed union with the Lithographers and Photoengravers at the same time that the latter group approved it. Other printing unions are exploring the possibility of merger, and several other unions are in various stages of the merger process.

Judging by previous attempts, it is unlikely that all of these efforts will be consummated. Nonetheless, that they are being discussed at all is symptomatic of a growing realization of what lies ahead for unions based on a single craft or industry in a time of technological change and continuing corporate conglomeration and product diversification.

Mergers Since the Merger. Trade union directories published biennially by the Bureau of Labor Statistics show only 22 union mergers since the 1958 consolidation of the AFL and the CIO. These include mergers of independent as well as affiliated organizations. Only three mergers joined unions of parallel jurisdiction from each of the former federations: mergers of paperworkers, barbers and hairdressers, and insurance workers.

Most of the mergers united small unions, usually of workers in a declining craft or industry, into larger, stronger organizations. Thus, the Textile Workers took in the Hosiery Workers, after the latter's membership dropped from 50,000 before World War II to 5,000 in 1965 because of technological change and plant relocation in the hosiery industry. Other mergers joined the Glove Workers with the Clothing Workers, the Agricultural Workers with the Meat Cutters, the Air Line Communications Employee Association with the Communications Workers, the Wall Paper Craftsmen with the Pulp, Sulphite Union, the Wire Weavers with the Papermakers and Paperworkers, and the Metal Engravers and Marking Device Workers with the Machinists.

Current Attempts. Unlike most mergers of the past decade, in which a dying union was rescued by a healthy one, the combinations now under consideration are generally composed of fully operative groups. In most cases, the unions already deal with the same employer or group of employers; in many cases, furthermore, the continuing erosion of craft lines has caused previously separate interests to converge.

The merger between the Steelworkers and the Mine, Mill union combined 80 percent of the organized workers in the nonferrous metals industry into one union. (Mine, Mill has 28,000 members in the industry; the Steelworkers have 38,000.)

A Mine, Mill convention approved the merger on January 17, 1967, and the union became an affiliate of the Steelworkers on February 1. On July 1, 1967, Mine, Mill's U.S. locals will be chartered as locals of the Steelworkers. (The Canadian Mine, Mill union will retain its autonomy.) This last step is being delayed until July to protect bargaining certifications while the merger takes place, as most of the major contracts in the nonferrous metals industry expire on June 30.

The Lithographers and Photoengravers Union (LPIU), itself a product of a 2-year-old merger, and the Stereotypers and Electrotypers Union (ISEU) also completed referendums on their proposed union in January. The Stereotypers rejected the merger; many members feared that their interests would be overridden by the larger Lithographers organization.

Other opponents of the merger were reluctant to submerge their craft identity in the proposed Graphic Arts Union, as the new organization was to be called, but proponents of the amalgamation—which would have joined all platemakers—held that it was necessary precisely because new printing processes may make stereotypers obsolete.

While the LPIU and ISEU were negotiating, the LPIU continued its efforts to unite all the printing crafts, completing a year of merger discussions with the 115,000-member Printing Pressmen (who later arranged a joint relationship with the Typographical Union) and beginning exploratory talks with the Bookbinders. All of these unions are affected by the new developments in printing technology that are replacing traditional jobs with new ones, many of which involve monitoring rather than operating equipment. Most of the union leaders believe that a single graphic arts union would facilitate an orderly transition to the new job structure and protect their members' interests in the process.

The proposed merger of 3 of the 5 railroad operating unions—the Locomotive Firemen and Enginemen, Railway Conductors, and Switchmen—is still in an early stage. These organizations, especially the Firemen, have lost members through technological change and the general decline in rail traffic. (The 1963 National Arbitration Award has reportedly cost the Firemen about 18,000 jobs, and has eliminated several thousand jobs held by members of the other two unions.) The unions' leaders expect consolidation to produce the advantages of unified representation and operating economies.

Last June, the Conductors approved the calling of a convention this spring to draft a constitution for the new organization, and the Firemen "endorsed and approved" the proposal a month later. The Switchmen's union must follow suit this year before further steps can be taken, though representatives of the three unions are already working on proposals for the new constitution.

On February 15, the two sea officer unions—the 10,000-member Masters, Mates, and Pilots, and the 12,000-member Marine Engineers—opened referendum votes to approve the merger in principle. These two unions represent deck and engine officers aboard more than 95 percent of all commercial American flagships, as well as civilian ship officers of Government marine units. According to industry experts, new technology is tending to diminish the traditional differences between the deck and engine jobs.

Other mergers now in the talking stage include the two shoemaking unions, whose previous merger attempts failed, and the two paper industry unions, each of which lost a substantial portion of its membership to a breakaway union during the joint 1964 negotiations with Pacific Coast manufacturers.

Earlier Attempts. Just after the AFL and the CIO merged, the leaders of the new organization hoped that member unions with parallel jurisdictions would soon get together. The consolidation of the Papermakers and the Paperworkers in 1957 was hailed as the "first concrete realization" of that goal of ending "conflicting and duplicating organizations and jurisdictions." Other unions made tentative approaches to their opposite numbers, but generally found that old animosities had not abated enough.

Negotiations for merger of the two packinghouse unions were broken off at the very last minute, apparently because of mistrust engendered by years of competition. The shoe workers' merger failed because of the difficulty of adjusting structural differences, as well as the problem of who was to get what offices in the new organization. Only last year, the two postal clerk unions stopped short of merger, mainly because the Postal Clerks' small town locals objected to dilution of their voting strength under the provisions of the new constitution. And the Federation's efforts to get the two textile unions together have not yet succeeded.

Another Avenue. The reasons that cause unions to accept or reject mergers are varied and complex. Rarely are such actions dictated by reason, for sentimental attachment to union traditions, a change of leadership, or the way that merger is explained to the members is often more important than technological change or similar considerations.

Certainly, union mergers could ease the jurisdictional wrangling behind many labor disputes, especially in industries where mergers are now under consideration—railroads, maritime, and printing. (A report recently prepared for the British Government concluded that a single union should be set up for the printing industry, since the craft demarcations on which the unions are based bear no relation to the new jobs.)

But merger is not the only way for unions to solve common problems. Many union leaders believe that they can get some of the benefits of merger, principally greater negotiating strength, by the multiunion bargaining alliances that many observers expect to be a major feature of collective bargaining in 1967.

Basic Provisions of the 1966 FLSA Amendments

SUSAN KOCIN*

EDITOR'S NOTE.—*The following article is the first of three dealing with the Fair Labor Standards Amendments of 1966. Part I of the series summarizes the changes and discusses their significance. Part II deals with the coverage aspects of the legislation and identifies various economic characteristics of workers protected by the Federal statute. The economic implications of the amendments, as judged by past experience, are analyzed in Part III.*

THE most far-reaching improvements yet accomplished in the Federal minimum wage law were effected on February 1, 1967, by the 1966 amendments to the Fair Labor Standards Act. Since the 1938 enactment of the law, the level of the minimum wage has been increased three times and the basic coverage of the act expanded once. The latter occurred in 1961 when a new dimension for "work in interstate commerce"—the "enterprise" concept of coverage—was created and became the basis for the present adjustments in the law's protection. The 1966 amendments establish essential minimum labor standards for 9 million nonsupervisory workers previously excluded from the benefits of the law, bringing to nearly 41.5 million the total number of workers protected by the minimum wage, overtime pay, child labor, and equal pay provisions of the Fair Labor Standards Act.

History of the Act

At the time of the law's enactment, the economy was recovering from the effects of a severe depression. Over 10 million Americans were still unemployed, and millions of part-time workers were fearful of losing the little employment they had. For decades, many organizations, groups, and individuals had expressed the belief that by setting "a floor under wages," "a ceiling over hours," and giving "a break to children," unfavorable labor conditions could be curbed or eliminated. The Fair Labor Standards Act was passed with the hope of improving workers' purchasing power, diverting school-age children from the workplace, and spreading available employment among millions of jobless adults.

Initially, the standards of the act applied to employees individually "engaged" in interstate commerce, in the "production of goods" for interstate commerce, or in activities necessary to such operations. Employees so engaged could be found in many industries, particularly in manufacturing, mining, transportation, communications, public utilities, wholesaling, finance, insurance, and real estate. The original act also contained many exemptions for employees based on either the industries or occupations in which they were engaged.

The minimum wage was set at 25 cents an hour in 1938, to be increased to 30 cents in 1940, and to 40 cents by 1945. A maximum workweek for covered employees was established, with a penalty of time and one-half the regular rate to be paid for hours worked over 44 a week in 1938, over 42 a week in 1939, and over 40 a week in 1940.

The first major amendments to the Fair Labor Standards Act were enacted in 1949.[1] These amendments increased the minimum wage requirement from 40 cents to 75 cents an hour on January 1, 1950. At that time, Congress reviewed the major problems of interpretation which had arisen through experience with the law and incorporated a number of clarifications into the language of the act. The coverage provisions were amended to include as "covered activities" only those "closely related and directly essential" to the production of goods for interstate commerce, rather than activities "necessary" to such production. These

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[1] A clarifying amendment, the Portal-to-Portal Act, was passed by the Congress in 1947 to remedy problems resulting from court decisions on what constituted "hours worked" under the Fair Labor Standards Act.

changes narrowed, to some degree, the scope of the act.

The 1955 amendments raised the minimum wage to $1 an hour, but made no changes in coverage.

In 1961, Congress substantially expanded the coverage of the law for the first time. While retaining the provisions for employees individually engaged in interstate commerce or in the production of goods for interstate commerce, the amendments established a new basis for covering *all* employees in any "enterprise" which had *some* employees so engaged. Dollar volume tests were established as a basis for enterprise coverage. Under these tests, coverage was extended primarily to employees in retail or service enterprises as well as to local transit, construction, and gasoline service station employees.

The 1961 amendments raised the minimum wage to $1.25 an hour. For those covered before the amendments, the first step in the increase, from $1 to $1.15, became effective on September 3, 1961, and the final step on September 3, 1963. Employees covered for the first time by these amendments became subject to a minimum hourly wage of $1 on September 3, 1961, $1.15 on September 3, 1964, and $1.25 on September 3, 1965. Overtime protection for these employees for hours worked in excess of 44 in any workweek began in 1963, and was reduced to 42 hours in 1964 and to 40 hours in 1965.

The 1966 Amendments

Since the enactment of the 1961 amendments, the Congress has received reports prepared by the Wage and Hour and Public Contracts Divisions on the need for and feasibility of extending the Fair Labor Standards Act to employees in a number of industries. Legislation introduced in 1965, based in part on these studies, was considered, expanded, and eventually enacted by the Congress as the 1966 amendments.

The latest amendments almost fulfill the original act's commitment to eliminate substandard working conditions in interstate commerce. With its new concept of "enterprise," the 1961 legislation increased the number of covered workers about 15 percent. By revising the definition of "enterprise" as well as "employer" and deleting or narrowing some exemptions, the 1966 amendments increase the number protected another 30 percent.

The "enterprise" concept of coverage has proven a workable means of encompassing large groups of employees in various industries within the wage protection of the act. The enterprise dollar volume test for coverage is reduced from $1 million to $500,000 in gross annual volume of business effective on February 1, 1967, and to $250,000 beginning February 1, 1969. Coverage is extended without a dollar volume test to employees of laundries and drycleaning enterprises, construction enterprises, and to non-Federal hospitals, nursing homes, private and public elementary and secondary schools, and institutions of higher education, both profit and nonprofit. Employees of retail and service establishments with annual receipts of less than $250,000 continue to be exempt from the law's requirements.

A major feature of the amendments is the extension of minimum wage protection to workers employed on large farms. The amendments also narrow or repeal exemptions for employees of hotels, restaurants, laundries and drycleaners, hospitals, nursing homes, schools, auto and farm implement dealers, small loggers, local transit companies, taxicab companies, and agricultural processing and food service employees. Coverage is extended to all employees of employers with Federal service contracts and to certain Federal wage board employees, as well as to employees in nonappropriated fund installations of the Armed Forces, such as post exchanges.

As in 1961, these amendments provide a timetable for reaching the new minimum wage standards. Rates for employees covered prior to the 1966 amendments, for most of the newly covered Federal employees, and for some employees of employers with Federal service contracts escalate in two annual steps; those for newly covered nonfarm workers are spread over a 5-year period; and the wage level for covered farm workers will be reached in three annual steps.

Effective date	*Hourly wage for old coverage*	*Hourly wage for new nonfarm coverage*	*Hourly wage for new farm coverage*
February 1, 1967	$1.40	$1.00	$1.00
February 1, 1968	1.60	1.15	1.15
February 1, 1969	----------	1.30	1.30
February 1, 1970	----------	1.45	----------
February 1, 1971	----------	1.60	----------

Overtime pay requirements remain unchanged for most employees previously subject to these provisions. Many of the groups subject to the overtime provisions for the first time are required to receive time and one-half their regular rate for hours worked over 44 a week as of February 1, 1967; those over 42 a week on February 1, 1968; and over 40 a week beginning February 1, 1969.

Hospitals and Nursing Homes. The new amendments delete the exemption for employees in hospitals and nursing homes and extend coverage to 2 million nonsupervisory employees of non-Federal hospitals, nursing homes, and related institutions. These employees are subject to the act whether they work in a private or public institution, whether it is a profit or nonprofit organization.

Because of scheduling problems in these institutions, overtime requirements vary from those previously embodied in the law. Nursing home employees receive overtime pay after 48 hours a week, and, after agreement with their employees that the work period is to be 14 consecutive days, hospitals may pay overtime compensation for hours worked over 8 in a day and 80 in the 14-day period. Premium pay for daily overtime may be offset against any additional overtime pay due for hours in excess of 80 in the 14-day period. This marks the first time that an 8-hour standard has been included in the act.

Schools. Employees of elementary and secondary schools and institutions of higher education are covered by the act. About 1¼ million employees in both private and public institutions, including many who traditionally have been among the lowest paid workers in our economy, now receive the benefits of a minimum wage and premium pay for overtime hours.

Hotels and Restaurants. About 300,000 employees in lodging establishments and almost 500,000 employees of restaurants which do $250,000 or more a year in business [2] are covered by the minimum wage provisions of the law. However, the Congress retained the exemption from the overtime requirements for these employees. Provisions in the amendments allow employees' tips to count toward the minimum wage. If an employee regularly receives more than $20 a month in tips, his employer may take credit for tips up to 50 percent of the applicable minimum wage. However, if the employee is receiving less than the amount credited, the employer is required to pay the balance so that the employee receives at least the minimum.

[2] Such establishments must be parts of enterprises having annual business of $500,000 or more effective February 1, 1967, and $250,000 or more on February 1, 1969.

Laundries. Some 500,000 employees in laundries and drycleaning establishments are newly covered by minimum wages and overtime provisions. The rates for workers already subject to the act's provisions—primarily in industrial laundries and linen supply plants—are those for previously covered employment.

Farm and Agricultural Processing Workers. In extending minimum wage protection to 400,000 agricultural workers, the 1966 amendments provide some measure of economic security to a group of workers long with little protective labor legislation. Generally, only employees of large farms receive the new benefit—those who work on farms which regularly use the equivalent of seven full-time farmhands. The minimum wage is required for employees of farm employers who have used more than 500 man-days of agricultural labor in any calendar quarter of the preceding year. The work of certain farm workers—members of the employer's immediate family and hand-harvest laborers paid on a piece-rate basis who are local residents employed in agriculture for less than 13 weeks in the previous calendar year—is not included in this man-day count. These workers are exempt from both minimum wage and overtime requirements of the act, as are migrant workers' children (under 17) who are employed on the same farm as their parents and paid at the same piece-rate as adult workers, as well as employees engaged in the range production of livestock. All farm workers continue to be exempt from overtime.

The 1966 amendments modify the exemptions for canning and other food-processing employees providing minimum wage protection for some 90,000 employees. In addition, the overtime exemptions for these and other processing workers are narrowed. Under the previous provisions of

the act, employers were able to claim either year-round or as much as two 14-week overtime exemptions each year. The amendments will allow, at most, two 10-week partial exemptions from the overtime requirements for these employees.

Puerto Rico. In Puerto Rico, wages increased by the same percentages as on the mainland—12 percent the first year and 16 percent a year later—for those previously covered by the act. Provision has been made for the appointment of review committees in those industries which seek a smaller increase because of financial hardship. Newly covered workers' wage rates will be established, as in the past, by industry committees, at levels (no higher than the statutory minimum) which are appropriate for the employment and competitive conditions of the economy.

Other 1966 revisions include:

1. Full-time students of any age may be employed part time on farms or in retail or retail-service establishments at 85 percent of the applicable minimum wage, subject to restrictions prescribed in the law.

2. Wages of handicapped workers in sheltered workshops are in most instances to be no less than 50 percent of the statutory minimum.

3. The overtime exemption is revoked for employees of gasoline service station establishments with $250,000 or more in annual volume of sales.

4. The overtime exemption is changed for employees of independently owned bulk petroleum distributors with less than $1 million a year in sales, to require time and one-half the *minimum* wage for hours over 40 and up to 56 a week, with time and one-half the employee's *regular* rate for hours over 12 a day and 56 a week.

5. Taxicab drivers and operating employees of some local transit companies continue to be exempt from the overtime provision.

6. A partial overtime exemption is established for employees of bowling alleys that are not exempt as retail or service establishments. Time and one-half the employee's regular rate is required for hours worked in excess of 48 in the workweek.

7. The statute of limitations is increased from 2 to 3 years for actions arising out of willful violations of the Fair Labor Standards Act.

* * *

The 1966 amendments represent a big step toward the goal of eliminating labor conditions detrimental to maintenance of the minimum standard of living necessary for the health, efficiency, and general well-being of our country's workers—the stated purpose of the Fair Labor Standards Act. When signing these amendments, President Johnson noted that "Today in this country, when you are poor, you are poor alone. The new minimum wage—$64 a week—will not support a very big family, but it will bring workers and their families a little bit above the poverty line . . . My ambition is that no man should have to work for a minimum wage, but that every man should have skills that he can sell for more."

As a matter of fact, we have for too long neglected the housing problem for all our lower income groups. We have spent large sums of money on parks, on highways, on bridges, on museums, and on other projects of civic betterment . . . But we have not yet begun adequately to spend money in order to help the families in the overcrowded sections of our cities to live as American citizens have a right to live.

—Franklin D. Roosevelt, in speech delivered in New York, October 28, 1936.

Adult Men Not in the Labor Force

A Special Labor Force Report on Historical Trends and the Characteristics of Nonparticipants, Plus New Data on Work Histories, Incomes, and Jobseeking Intentions

SUSAN S. HOLLAND*

OVER THE LONG RUN, several major trends have been operating to reduce the proportion of men who participate in the U.S. labor force. In 1947, the participation rate for men 18 years of age and over was 88.1 percent; by 1966, it had receded to 82.5 percent.

In the first decade after World War II, the decline was accounted for mainly by lower rates for teenagers and men past 65 years of age, as full-time school attendance lengthened and the average age of retirement moved downward. While these trends have continued during the past 10 years, a number of additional factors have been at work in the more recent period. The extension of retirement benefits under social security and private pension plans to men in their early sixties has contributed to the downtrend in participation. At the same time, some proportion of male nonworkers have been squeezed out of the labor force by economic and sociological factors beyond their control. In addition, incomes have risen sufficiently to permit a growing proportion of American men between the ages of 18 and 64 to choose study, social service, or travel or other leisure activities rather than paid employment.

From a social and economic point of view, nonparticipation has quite a different meaning at different ages. For younger men, the main reason is school attendance—a desirable alternative to labor force participation in the sense that the individual's work skills are being developed. In the age group approaching 65, retirement and leisure are the desires of many men and a necessity for others beset by ill health or disability. But for men in the central ages, work is normally an economic necessity, and in these ages nonparticipation is frequently an evidence of deprivation.

At the moment, it is not possible to determine what proportion of the nonparticipants were forced out of the labor force, as distinguished from those who retired or withdrew voluntarily to devote themselves to leisure activities. Information in this area—particularly the reasons for nonparticipation—is expected to expand greatly in 1967, through a special supplemental survey and through the regular compilation of data each month in the household survey.

The usual expectation in the United States of the mid-1960's is that men who are out of school and are not old enough to retire will be working or seeking work. Despite the trends cited above, over 90 percent of the men between the ages of 18 and 64 were in the labor force in 1966. The link between employment and income is still far from broken, whatever the future may bring in the way of sharply reduced man-hour requirements and income maintenance programs. The focus of this study, however, is the sizable minority of American men of working age—4½ million, or 9 percent of the civilian noninstitutional population 18 to 64 years old—who were outside the labor force in 1966. The nonworker group is significant because of its size, its tendency to grow, its age-color composition, and its hitherto little known characteristics. This group presents both an ana-

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lytical and a policy challenge in a period when adult male unemployment has reached its lowest level in 13 years and labor shortages have emerged in several occupations and industries, and when one of the major strategies in the war on poverty is the fullest possible utilization of available manpower resources.

The major findings of the present study of nonparticipants are summarized below.

1. Over the past decade, the proportion of nonparticipants among men 18 to 64 rose from 6 percent of the entire population group in 1956 to 8.7 percent in 1966. The sharpest and most persistent rise in nonparticipation occurred among those age 18–24 because of longer school attendance and in the 60–64 age group (mainly those 63 and 64 years of age, who are eligible for early retirement under 1961 amendments to the Social Security Act).

Chart 1. Male Population Not in Labor Force, by Age, 1956–66

2. The nonparticipation rate for men 25 to 44 years of age remained small over the past 10 years (2.4 percent in 1956, 2.7 percent in 1966). But there was a moderate rise among the 45 to 54 year-olds—up from 3.4 to 4.7 percent—and the 55 to 59 year-olds—from 7.6 percent in 1956 to 10.1 percent in 1966. Unemployment rates among men in these same age groups have declined below 1956 levels, coming down very sharply in the past 3 years.

3. The proportion of men outside the labor force is higher for nonwhites than whites except among those under 25 years of age, and the gap is greatest in the men of prime working age. In 1966, 6½ percent of the nonwhite men age 25–54, but only 3 percent of the white men in this age group were neither working nor seeking work. The gap between the proportions of white and nonwhite men outside the labor force developed in the early 1950's and increased until 1961. In the last 5 years, however, the relative difference has remained about constant.

4. For two-thirds of the adult men outside the labor force, the reasons for nonparticipation are self-evident. About 1.9 million were going to school, and 1.1 million were unable to work because of a long-term physical or mental disability. Some of those currently unable to work will recover and return to the labor force on their own initiative, and some in this group have physical, mental, or psychological disabilities which could be remedied if sufficient resources were invested.

5. The picture for the remaining 1.6 million is much less clear. Half were in the 55–64 age bracket, a group that includes a growing proportion of early retirees. In the younger age groups, there were a sizable number whose absence from the labor force was only a temporary situation (waiting to return to school or enter the Armed Forces, expecting to move to another community, or deciding what to do after having quit a job). The quantification of these kinds of reasons, as contrasted to withdrawal because of discouragement over job prospects, awaits the obtaining of additional data in 1967.

6. Nearly one-third of the 4½ million men not in the labor force had worked within the past 6 months. Almost half of the nonparticipants intended to look for work in the next 12 months.

These facts support the hypotheses that a significant proportion of nonparticipation is the result of temporary factors and that a substantial number of the nonworkers have a strong attachment to the work force.

7. The same pattern was reflected in a recent survey of the work experience of the population during the entire calendar year. The study showed that of the 5.2 million men 25–64 years of age who were not in the labor force some time during 1964, only 1.5 million were outside the work force for the entire year.

8. Of the 4½ million men outside the labor force, 3 million had worked within the past 5 years. Only 11 percent of these (325,000) had been separated involuntarily for economic reasons—slack work, completion of seasonal or temporary jobs, changes in company management, and so forth. Approximately 75 percent of these men who had lost their jobs intended to seek work again within the next year.

9. In March 1966, 2.9 million men age 20–64 were living in families and out of the labor force. Their family income in 1965 averaged $5,300, compared with $7,900 for all men in this age group. Slightly more than half of the 2.9 million nonparticipants were family heads. Median income for this group was $4,100, indicating the increased economic hardships which result when the male family head is not in the labor force.

Trends

Over the last decade, there has been a gradual but steady increase in the number of 18–64 year-old men not in the labor force.[1] More important, the nonparticipant group increased as a percentage of the population—from 6 percent in 1956 to 8.7 percent in 1966.

As chart 1 illustrates, the sharpest and most persistent rise in nonparticipation occurred in younger and older age groups. Increased school attendance was responsible for all of the rise in the 18–24 age group. The number of young men outside the labor force because of school doubled between 1956 and 1966, as the "in school" group increased from 13 to 18 percent of the population.

Older Men

In the same 10 years, nonparticipation also rose among men age 55–64—from 11.5 to 15.5 percent of the population. The increase took place primarily among men between the ages of 60 and 64 and was attributable mainly to retirement—part of it voluntary and part of it mandatory or forced on the retiree. In 1956, about 12 percent of the population age 60–64 was not in the labor force for reasons other than inability to work; by 1966, the proportion had risen to 17.3 percent. Among 55–59 year-olds, the comparable proportion edged up from 4.9 to 6.3 percent.

The increasing number and liberalization of private pension plans, the extension of social security coverage, and the 1961 Social Security Act amendments which permitted men to draw retirement benefits at age 62 have all contributed to the decline in labor force participation among older men. In the 1961–65 period, 1.6 million men, about half of the group awarded social security retirement benefits, were under the normal retirement age of 65.[2]

There is considerable additional evidence that early retirement was the major factor in declining participation for these older men. Of the 60–64 year-old men outside the labor force in 1966 who had worked in the previous 5 years, and were still able to work, about 4 out of 10 reported that they left their last jobs because of retirement. Moreover, the decline in participation among men in this age group has accelerated in the last 5 years. From 1956 to 1961, the proportion of 60–64 year-old men outside the labor force increased from 16 to 18 percent; it rose from 18 to 22 percent between 1961 and 1966. This drop in participation in the last 5 years has been sharpest among 63 and 64 year-olds. Participation rates for men between the ages of 55 and 62 remained unchanged or declined moderately from 1961 to 1966. In the same 5-year period, worker rates fell about 8 percentage points for 63 and 64 year-olds.

Although for men in their early sixties retirement has been the major reason for labor force

[1] Data in this section are based on 1956–66 annual averages from the Current Population Survey. Except for the Korean period, 1956 was the peak year for adult male labor force participation in the post-World War II period.

[2] *Social Security Bulletin,* September 1966, table Q–6, p. 51. Data are for the period August 1961 (when reduced benefits for men became available) through August 1965.

TABLE 1. EMPLOYMENT STATUS OF MEN AGE 18–64, JANUARY–JUNE 1966 AVERAGES
[Numbers in thousands]

Age	Civilian noninstitutional population	Civilian labor force		Not in the labor force			
		Number	Percent of population	Total	In school	Unable to work	Other reasons
Total, 18–64 years	48,996	44,391	90.6	4,599	1,914	1,060	1,581
18–19 years	3,169	2,006	63.3	1,162	1,016	23	121
20–24 years	5,640	4,698	83.3	941	779	30	131
25–34 years	10,200	9,916	97.2	310	86	98	126
35–44 years	11,339	10,971	96.8	366	28	162	168
45–54 years	10,575	9,996	94.5	580	4	294	268
45–49 years	5,487	5,268	96.0	220	4	102	103
50–54 years	5,088	4,728	92.9	360	----------	192	165
55–64 years	8,071	6,831	84.6	1,240	1	453	767
55–59 years	4,399	3,960	90.0	439	1	213	215
60–64 years	3,672	2,871	78.2	801	----------	240	552

SOURCE: Monthly Labor Survey.

withdrawal, preliminary studies indicate that in many cases the retirement was involuntary or simply an alternative to unemployment or sporadic employment at low wages.[3] Similarly, a recent Bureau of Labor Statistics study showed that the 1962–65 decline in participation for men age 55–64 was almost entirely among those with the lowest educational attainment.[4] The greater tendency of men with low educational attainment, low earnings, and poor work histories to withdraw from the labor force may explain why the proportion of nonparticipants in the 55–64 age group is higher for nonwhites (19 percent) than for whites (15 percent).

The Central Ages

The proportion of men age 25–54 not in the labor force has traditionally been low (under 4 percent) and stable. In the past decade this held true for 25–44 year-olds, but there was a slight increase in nonparticipation for the 45–54 age group—from 3.4 percent in 1956 to 4.7 percent in 1966. Most of this rise occurred between 1956 and 1960. From 1960 to 1965, the proportion outside the labor force held steady at 4.4 percent; it then edged up to 4.7 percent in 1966.

In 1966, unemployment rates for men age 25–54 were substantially lower than in 1956 and were about the same as the lowest rates recorded since World War II. Furthermore, changes in adult male unemployment rates and changes in participation have not revealed any significant or persistent relationship. Increases in nonparticipation among adult men apparently represent primarily secular, rather than cyclical, developments.

In absolute numbers, the increase in nonparticipation has been moderate among men in the central ages. If the participation rate of adult men had been the same in 1966 as in 1956, there would have been 200,000 more men age 25–54 in the labor force. Moreover, reductions in unemployment for this age group over the 1956–66 period exactly offset the slight increase in nonparticipation, so that the proportion of adult men in the central ages who were employed was the same in 1956 and 1966 (95 percent).

Characteristics of Nonworkers

In the first 6 months of 1966, about 4½ million men between the ages of 18 and 64 were not in the current labor force, that is, they had no employment and were not looking for work.[5] On the other hand, more than 44 million men (about 91 percent of the population in this age group) were employed or seeking work. Men outside the labor force are concentrated at the two extremes of the adult male age spectrum: Approximately 2 of the 4.6 million total were 18–24 years old, and 1¼ mil-

[3] Lenore A. Epstein, "Early Retirement and Work Life Experience," *Social Security Bulletin*, March 1966, pp. 3–10.

[4] "Educational Attainment of Workers in March 1965," *Monthly Labor Review*, March 1966, pp. 250–257.

[5] This section is based on January–June 1966 averages from the Monthly Labor Survey (MLS), a program which ran experimentally during 1965 and 1966 to test and improve labor force measurements. A January–June average was selected in order to exclude the summer months when many young men, who are normally students, enter the work force temporarily. The MLS provided data previously unavailable on when nonparticipants last worked, the reasons they left their last job, and their intentions to seek work again.

lion were age 55–64. Only 1¼ million nonparticipants were in the central age group. (See table 1.)

Age

Of 2.1 million nonparticipants between the ages of 18 and 24, approximately 1.8 million were attending school. About 250,000 were outside the labor force for other reasons, such as waiting to enter the Armed Forces, taking a vacation before returning to school or starting a job, or recovering from a short-term illness. In addition, some of these young men have stopped looking after repeated inability to find work.

Of the 1¼ million nonworkers between the ages of 25 and 54, slightly more than 100,000 were in school. The remainder were about equally divided between the unable-to-work group [6] and those who reported a variety of other reasons for nonparticipation. Some of the latter group were probably discouraged workers, men who have given up the search for work after repeated failures and rebuffs. On the other hand, some of the nonparticipants in the 25–54 age group were outside the labor force because of personal preference—the dreamers and drifters who were able to adjust both financially and psychologically to nonworker status. Current information is not available to quantify the number of men in each of these two categories.

Others were only temporarily outside the labor force. Examples would be the seasonal worker for whom the survey period fell during the off season; the person who was taking a vacation between jobs; the person who planned to move to another area; or the person who was recovering from a temporary illness, accident, or operation.[7]

Approximately 1¼ million 55–64 year-olds were not in the labor force in 1966, with the 60–64 age group accounting for about two-thirds of the total. Disability becomes an increasingly important reason for nonparticipation among men over 55 years of age. In the 25–54 age category, only 1½ percent of the population was outside the labor force because of inability to work; the comparable proportion rose to 5 percent for 55–59 year-olds, and to 6½ percent for men age 60–64. In addition to the 450,000 who were unable to work, approximately 750,000 men age 55–64 were not working for a variety of other reasons. For the 60–64 year-olds in the "other reasons" category (550,000), retirement and health problems were undoubtedly major causes of nonparticipation.

Color

Labor force participation rates for white men are uniformly higher than those for Negro [8] men, except in the 18–24 age group. The gap between white and Negro rates is largest among men of prime working age. Moreover, the weaker labor force attachment of Negro men was evident in both the 25–44 and 45–54 age categories. The nonparticipation rate for Negro men age 55–64 (19 percent) was also higher than the comparable proportion for white men (15 percent), but the gap was relatively less for these men than for men in the 25–44 and 45–54 age categories.

Out of 1¼ million men between the ages of 25 and 54 not in the labor force, one-fifth were Negroes. Negro men, however, accounted for only one-tenth of the population in this age group. This means that Negroes in the central ages, as a group, carry about double their proportionate share of the problems which usually result from nonparticipation in the work force.

Higher rates of disability accounted for part of the gap between white and Negro participation rates. Poor diet, poor general environment, lack of medical care, and employment in low skilled and frequently dangerous occupations all contribute to the higher disability rate of Negro men. In addition, Negroes are more likely to be in jobs which require full physical capabilities.

The greater proportion of Negro men not in the labor force for other reasons may result in part

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[6] The definition of inability to work is very tightly drawn in the labor force survey. The enumerators are instructed to include in this category only long-term mental or physical disabilities which incapacitate persons for any kind of work. Only specific conditions, such as blindness, loss of limbs, serious heart trouble, tuberculosis, and so forth, meet the test. Temporary injury and illness or a combination of minor disabilities which normally come with old age are not included. While the incidence of long-term physical or mental disability increases with age, it is not limited to older persons.

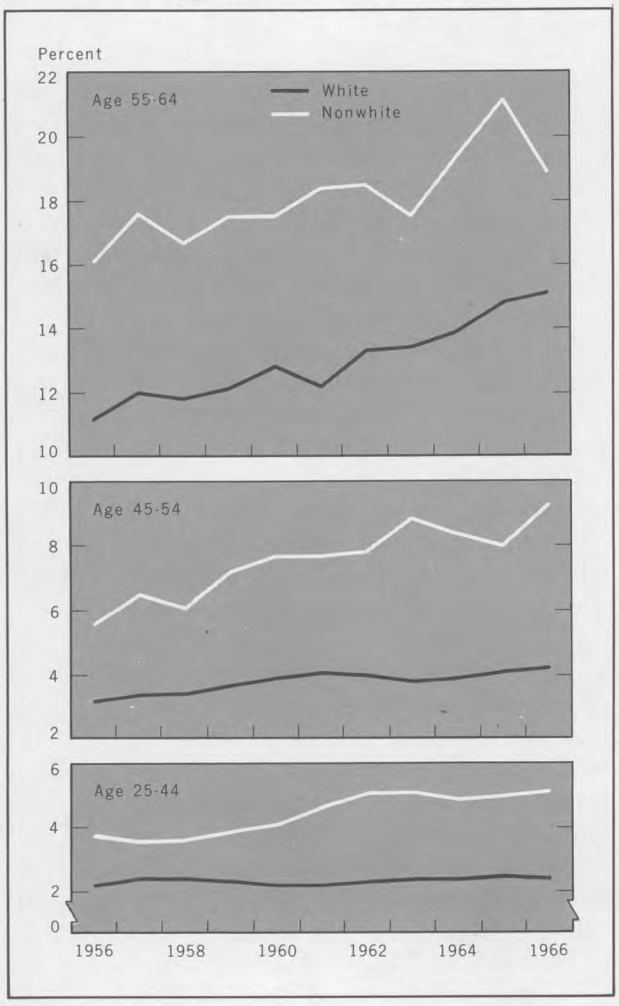
[7] A recent study based on data from the National Health Interview Survey indicates that about one-fifth of the 25–64 year-old men not in the labor force have work limitations because of chronic health problems. These men are restricted in the amount or kind of work they can perform, but they differ from those who are not able to work at all. See "Work Limitations and Chronic Health Problems," *Monthly Labor Review*, January 1967, pp. 38–41.

[8] Statistics for all nonwhite persons are used to depict the labor force situation of Negroes. Negroes make up about 92 percent of all nonwhites in the United States.

from the concentration of Negroes in seasonal and other temporary employment. In addition, because of lower educational attainment, lesser skill, and racial discrimination, Negroes are more frequently denied employment or relegated to the least desirable jobs. Repeated refusals of employment or offers of only menial jobs may have caused some of these men to give up the search for work.

Most of the gap between Negro and white nonparticipation developed during the 1950's. The color difference has held constant—at just over 3 percentage points—for the last 5 years. In 1961, 4.6 percent of the white men age 25–64, compared with 7.8 percent of the Negroes, were not in the labor force. By 1966, the proportion of white nonparticipants had increased to 5.5 percent, while the Negro proportion had risen to 8.8 percent.

Chart 2. Male Population Not in Labor Force, by Age and Color, 1956–66



Among men 18–24 years of age, the labor force participation rate was higher for Negroes than for whites, because of the higher proportion of school attendance among young white men. Approximately 21 percent of the white 18–24 year-olds, compared with 14 percent of the Negroes, were in school during the first half of 1966. Better jobs, more stable employment, and greater opportunities for advancement accrue to young men with more education. Therefore, the lower rate of school attendance for Negroes points to less satisfying work careers, often marked by higher rates of unemployment and early withdrawal from the labor force.

It is also disturbing to note that the proportion of young men not in the labor force for other reasons was substantially higher among Negroes (5.3 percent) than among whites (2.5 percent). The absolute number of Negro 18–24 year-olds able to work, but not in the labor force and not in school, was small—50,000. Nevertheless, the proportion was twice as high as for whites.

Previous Work Experience

The Monthly Labor Survey provides a substantial amount of information on the work history and future jobseeking intentions of persons not in the current labor force. The following sections summarize data on two important factors in assessing the labor force attachment of persons not now in the labor force—when they last worked and why they left their previous jobs.

Date Last Worked. Nearly half of the 4½ million men not in the labor force in the first 6 months of 1966 had been employed in the preceding 18 months—about 1.4 million worked during 1966, and 750,000 were last employed in 1965. (See table 2.) Another 900,000 held their last jobs between 1961 and 1964. The remaining 1.4 million either had not worked in the last 5 years or had never worked. Virtually all of those who had never worked fell into 1 of 2 groups—under age 25, or unable to work.

White male nonparticipants reported recent work experience more frequently than Negroes.

Fully half of the white men had worked in the preceding 18 months, compared with 40 percent for Negroes. There was also a striking color difference in the proportion of young men who had never worked. About 36 percent of the 18–24 year-old Negroes not in the current labor force had never held a regular full-time or part-time job; only 23 percent of the young whites were in this category. In other words, young Negro men are far less likely than young whites to obtain the early work experience which makes them more employable in the adult years.

The fact that almost one-third of the men not in the labor force had worked in the previous 6 months indicates the substantial amount of short-term mobility between the employed and nonworker status for this group. Their recent work experience suggests that these men may still have a strong attachment to the labor force. As will be brought out in a later section, many of them intend to reenter the labor force within the next year—after completing school, discharge from the Armed Forces, recovery from temporary illness, or completion of brief vacations between jobs.

The 4½ million men not in the labor force in 1966 included 1 million who were unable to work because of a long-term physical or mental disability. When the unable-to-work group is excluded, the proportion with recent work experience rises sharply. This difference was particularly notable among men of prime working age. (See tabulation below.) Nearly 1.2 million men age 25–54 were not in the labor force, but only 650,000 of this group were able to work. More than half (53 percent) of those able to work had been employed in the preceding 18 months, including 44 percent who had worked in the last 6 months.

Date last worked	*Men age 25–54 not in the labor force*		
	Total	*Able to work*	*Unable to work*
Number (in thousands)	1,172	648	524
Percent	100.0	100.0	100.0
1966	30.6	43.7	14.5
1965	6.6	8.4	4.4
1964	7.9	8.5	7.3
1961–63	15.7	11.1	21.4
Before 1961	27.6	21.5	35.3
Never worked	11.3	6.8	16.8

These proportions point up the considerable amount of short-term movement into and out of the labor force among men in the prime age groups,

TABLE 2. MEN AGE 18–64 NOT IN THE LABOR FORCE, BY DATE LAST WORKED, JANUARY–JUNE 1966 AVERAGES

[Numbers in thousands]

Age and percent distribution	Total	1966	1965	1964	1961–63	Before 1961	Never worked
AGE							
Total, 18–64 years	4,392	1,383	747	347	540	751	624
18–19 years	1,085	384	307	31	15	---	346
20–24 years	929	385	261	76	63	6	137
25–44 years	604	193	46	62	68	138	97
45–54 years	568	166	31	32	116	186	35
55–64 years	1,206	256	103	144	276	418	10
55–59 years	451	93	28	54	90	182	5
60–64 years	755	162	76	90	186	236	5
PERCENT DISTRIBUTION							
Total, 18–64 years	100.0	31.5	17.0	7.9	12.3	17.1	14.2
18–19 years	100.0	35.4	28.3	2.9	1.4	---	31.9
20–24 years	100.0	41.4	28.1	8.2	6.8	.6	14.8
25–44 years	100.0	32.0	7.6	10.2	11.2	22.8	16.1
45–54 years	100.0	29.2	5.4	5.6	20.5	32.8	6.2
55–64 years	100.0	21.2	8.5	11.9	22.9	34.7	.8
55–59 years	100.0	20.7	6.1	11.9	20.0	40.3	.9
60–64 years	100.0	21.5	10.0	11.9	24.6	31.3	.7

SOURCE: Monthly Labor Survey.

a finding confirmed by a recent survey of work experience during the entire calendar year,[9] in which approximately 10 percent of the men age 25 to 64 who worked or looked for work in 1964 were in the civilian labor force for less than a full year. Almost all of the men who were in the labor force only part of the year cited illness or service in the Armed Forces, vacations, or retirement as their reason for not being in the labor force.

Long periods of unsuccessful jobseeking did not appear to be an important factor in driving men out of the labor force. Of the men who were in the labor force less than 50 weeks, about 80 percent had no unemployment; they worked all the time they were in the labor force. The proportion with no unemployment was only slightly higher—87 percent—among men who had been in the labor force all year (50–52 weeks).

The survey also showed that much of the adult male withdrawal from the labor force is short-term. Of the 3.5 million men age 25–64 who worked in 1964 and also had periods outside the labor force, 1.8 million—more than half—were in the labor force for 40–49 weeks. In other words, these 1.8 million men were outside the work force for less than 3 months during 1964. Another

[9] "Work Experience of the Population in 1964," *Monthly Labor Review*, February 1966, pp. 155–163.

TABLE 3. MEN AGE 18–64 NOT IN THE LABOR FORCE, BY INTENTIONS TO LOOK FOR WORK AND DATE LAST WORKED, JANUARY–JUNE 1966 AVERAGES[1]

[Numbers in thousands]

Age and percent distribution	Total	Intend to look			Do not intend to look		
		Total	Last worked		Total	Last worked	
			1961 or later	Before 1961 or never		1961 or later	Before 1961 or never
AGE							
Total, 18–64 years	3,397	1,951	1,624	326	1,446	863	577
18–19 years	1,069	817	625	191	252	103	150
20–24 years	890	642	585	55	248	172	74
25–44 years	373	197	172	26	176	103	72
45–54 years	275	114	90	23	161	92	68
55–64 years	790	181	151	28	609	394	213
PERCENT DISTRIBUTION							
Total, 18–64 years	100.0	57.5	47.8	9.6	42.5	25.4	17.0
18–19 years	100.0	76.4	58.5	17.9	23.6	9.6	14.0
20–24 years	100.0	72.1	65.7	6.2	27.9	19.3	8.3
25–44 years	100.0	52.9	46.2	6.9	47.1	27.5	19.3
45–54 years	100.0	41.6	32.8	8.4	58.4	33.6	24.8
55–64 years	100.0	22.9	19.1	3.6	77.1	49.9	27.0

[1] Excludes those unable to work because of a long-term physical or mental disability.

SOURCE: Monthly Labor Survey.

750,000 men who worked in 1964 were out of the labor force for 3 to 6 months.

A total of 5.2 million 25–64 year-old men were outside the labor force sometime during 1964; approximately 1.5 million (29 percent) were nonparticipants for the entire year. Most of the men outside the labor force all year (1.1 of 1.5 million) were in the 45–64 age group. Only 350,000 in ages 25–44 (one-sixth of the number outside the labor force sometime during 1964) were nonparticipants all year.

In summary, data from both the work experience survey and the Monthly Labor Survey indicate that there is substantial movement into and out of the labor force by adult men. The total number of men not in the labor force at any given point in time does not indicate how many have been nonworkers for long periods, nor how many may be expected to remain outside the work force indefinitely. In some cases, the same individuals remain outside the labor force for several years or permanently, but these long-term nonparticipants are a minority among men in the central age groups who are able to work.

Reasons for Leaving Last Job. Information was obtained from the nearly 3 million men not in the labor force who had worked in the last 5 years as to why they left their last regular full-time or part-time job. Included in the 3 million were 500,000 men classified as unable to work, virtually all of whom had left their previous jobs for medical or health reasons. The unable-to-work group is excluded from the following discussion, leaving nearly 2.5 million men who had worked in the last 5 years and were still able to work.

Only 300,000, about one-eighth, of the total able to work, had left their last jobs for economic reasons. "Economic reasons" were interpreted to include slack work, completion of seasonal or temporary jobs, changes in company management, and similar reasons. The proportions reporting economic reasons varied considerably by age, as shown in the following tabulation.

Reason for leaving last job	*Percent distribution, by age*			
	Total, 18–64	*18–24*	*25–54*	*55–65*
Number (in thousands)	2,456	1,465	442	549
Percent	100.0	100.0	100.0	100.0
Economic reasons	12.9	8.5	23.2	16.6
Noneconomic reasons	87.1	91.5	76.8	83.4
Personal, family, school	50.3	78.2	16.4	2.2
Medical or health	14.9	2.0	35.3	33.2
Retirement or old age	9.7	------	6.7	38.1
Other	12.2	11.2	18.4	9.9

About 60 percent of the 18–64 year-old men had left their last jobs for personal, family, school, or other noneconomic reasons. Not surprisingly, these reasons were most important for the younger

men; 7 out of 8 of those age 18–24 cited these reasons. Personal, family, school, and miscellaneous noneconomic reasons were also reported for about one-third of the 25–54 year-olds, while a similar proportion of this age group left their last jobs for medical or health reasons. Retirement was the leading reason for 55–64 year-olds, closely followed by medical or health reasons.

Future Jobseeking Intentions

A majority (57 percent) of the 3.4 million men not in the labor force who were able to work intended to seek employment within the next 12 months.[10] Altogether, nearly 2 million men reported definite, probable, or possible plans to seek work in the next year. The "maybe" group included persons whose intentions were somewhat weak or qualified. For example, a man who said he would look for work if his health permitted would be classified as a possible jobseeker. On the other hand, 1,450,000 (43 percent of the able-to-work total) were reported as not intending to look or not knowing whether they would look for work in the next year. (See table 3.)

Intentions to seek work were reported most frequently by men who had worked within the last 5 years. Two-thirds of the group with work experience since 1961 intended to look for jobs within the next year. In contrast, only one-third of those who had never worked or last worked before 1961 reported intentions to look in the next year.

As would be expected, young men most frequently reported intentions to seek work. Approximately three-fourths of the 18–24 year-olds planned to look for jobs in the next 12 months, compared with about half of the 25–54 year-olds and one-fourth of the 55–64 age group. Most of the young men not intending to seek work probably planned to continue school or expected to be in the Armed Forces for the next 12 months. On the other hand, most of the 55–64 year-olds not intending to look were probably retirees or men who considered themselves too old to work; two-thirds of this group was 60–64 years of age.

About 350,000 men age 25–54 reported no intention to seek work; a nearly equal number did plan to look. Two factors, age and recent work experience, have considerable influence on the jobseeking intentions of men in the central age groups. The group which planned to seek work was significantly younger than those who did not. Also, the great majority (85 percent) of the 25–54 year-olds who planned to look had worked since 1961. In contrast, only 60 percent of the group which did not intend to look had worked within the past 5 years.

Men who left their last jobs for economic reasons did not appear to have given up the search for employment. Approximately 75 percent of those reporting economic reasons intended to seek work within the next year. The comparable proportion among those who left their previous jobs for noneconomic reasons was 65 percent.

Family Responsibilities

The degree of economic hardship resulting from nonparticipation in the work force is determined largely by the family responsibilities of the nonparticipant. If he is a young single person, he may be able to live on little income of his own, especially if he is living with relatives. Of the young men not in the labor force, virtually all of the 18–19 year-olds and nearly 85 percent of the 20–24 year-olds were relatives of the household head. These young men—many of them attending school—are supported by their parents. As the following section shows, median family income for these families with young men not in the labor force is substantially higher than average. The nonworker who is married with a wife and family to support has much greater financial needs, and lack of regular employment income causes severe hardship.

Household Relationship. Most men between 25 and 54 are household heads living with relatives, that is, they carry the major responsibility for support of the family. There was a marked difference in this respect, however, between men in the labor force and those outside it. Almost 90 percent of the 25–54 year-old men in the labor force were household heads living with relatives. The comparable proportion for the 1¼ million men not in the labor force was less than 60 per-

[10] The 1 million men unable to work are excluded from this section because very few of them (less than 15 percent) intended to look for work.

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TABLE 4. EMPLOYMENT STATUS OF MEN AGE 20–64 IN MARCH 1966, BY FAMILY INCOME IN 1965

[Numbers in thousands]

Age and employment status	Total	Family income in 1965			
		Under $3,000	$3,000–$6,999	$7,000 or over	Median income
EMPLOYMENT STATUS, BY AGE					
Total, 20–64 years	43,595	4,063	14,034	25,497	$7,948
Employed	39,465	2,966	12,590	23,911	8,131
Unemployed	1,210	274	473	462	5,720
Not in Labor force	2,920	823	971	1,125	5,334
20–24 years	5,470	601	2,028	2,841	$7,258
Not in the labor force	867	75	187	604	9,693
25–44 years	20,835	1,495	6,890	12,450	$7,958
Not in the labor force	553	145	236	152	4,702
45–54 years	9,978	828	2,730	6,420	$8,702
Not in the labor force	461	173	175	113	4,128
55–64 years	7,312	1,139	2,386	3,786	$7,244
Not in the labor force	1,059	430	373	256	3,877
25–64 YEARS, BY FAMILY RELATIONSHIP					
Family heads, total	34,708	2,968	11,077	20,664	$8,010
Not in the labor force	1,526	558	620	350	4,102
Relatives of the head, total	3,416	425	922	1,992	8,297
Not in the labor force	528	181	163	172	4,460

SOURCE: Person-family supplement to the March 1966 Current Population Survey.

cent, as the following tabulation shows. In other words, about 9 out of 10 men in the labor force were prime family breadwinners, while only 6 out of 10 men not in the labor force carried such responsibilities.

Relationship to household head	*Men age 25–54*			
	In the labor force		*Not in the labor force*	
	(In thousands)	*(Percent distribution)*	*(In thousands)*	*(Percent distribution)*
Total	30,856	100.0	1,257	100.0
Household head	28,595	92.7	843	67.1
Living with relatives	27,258	88.3	727	57.8
Not living with relatives	1,336	4.3	116	9.2
Relative of head	1,869	6.1	387	30.8
Nonrelative of head	390	1.3	27	2.1

Despite the relatively low proportion of household heads among men outside the labor force, there were 725,000 nonparticipants age 25–54 with family responsibilities in 1966. The majority of these 725,000 households probably suffered economic hardship because the male head lacked regular income from a job, even though in some of the families, wives, children, or other secondary workers took jobs in order to supplement family income.

In contrast to the group discussed above, about one-half million 25–54 year-old men outside the labor force were not household heads living with relatives, and thus did not bear the major responsibility of providing goods and services for dependents. These men accounted for 42 percent of all 25–54 year-olds not in the labor force. These proportions clearly indicate that the family responsibilities and, therefore, the economic needs of men outside the labor force—as a group—were substantially less than for men in the work force. On the other hand, the nonparticipants' lack of employment undoubtedly made it difficult for them to assume the family responsibilities normally carried by men in these ages.

Of the 25–54 year-olds not in the labor force, approximately 400,000 were relatives of the household head—sons, fathers, or brothers. Some of these men may have had personal financial problems, but generally they were not responsible for the support of others. Moreover, median family income for men not in the labor force who were relatives of the head was moderately higher than that for family heads who were nonparticipants.

Another 150,000 men outside the labor force were living alone or sharing quarters. Lack of regular income from a job undoubtedly worked serious hardships on many of them. Again, however, the financial problems were usually limited to the individuals involved. Few of these men had wives, children, or other persons dependent on their income.

Family Income and Composition. Men not in the labor force have substantially lower family incomes than their counterparts in the work force.[11] In 1965, median family income for the nearly 3 million 20–64 year-olds outside the work force was approximately $5,300, compared with $7,900 for all men in this age group and about $8,100 for employed men. (See table 4.) About 28 percent of the nonparticipants were in families with incomes below the $3,000 poverty line; 39 percent had family incomes of $7,000 or more. The high family incomes of many adult male nonparticipants can be attributed partially to the presence of other earners in the family. Also, many of the

[11] Data in this section were obtained from a supplement to the Current Population Survey conducted in March 1966. The labor force status and family relationship of the civilian noninstitutional population in March 1966 were crosstabulated with family income for the same persons in calendar year 1965.

nonparticipants in March 1966 had been outside the labor force for only short periods of time, and may have made a substantial contribution to family income during 1965.

Family income for men outside the labor force varied markedly by age. For nonparticipants in their early twenties, the median was $9,700. (Most of the nonparticipants in this age group were college students who were supported by their parents.) On the other hand, average income was $4,500 for men 25–54 years old and $3,900 for 55–64 year-olds. Median family income for nonparticipants 25–64 years of age was somewhat lower for men who were family heads ($4,100) than for those who were relatives of the head ($4,500). Although family incomes are low when the male head is not in the labor force, the resulting economic hardship may be reduced because the average family size is smaller and there is a relatively low proportion of young children in these families.

Erratum

The following corrections should be made in "Review of Labor Relations in 1966" in the December 1966 issue of the *Review*. The wage increase for Chicago nurses was a monthly rather than yearly increase and ranged from $90 to $210 (p. 1360). West Coast longshoremen received a 50-cent-an-hour increase in basic rates rather than in average wages (p. 1358). The special cost-of-living escalator in General Electric Co.'s 1966 contract with the International Union of Electrical Workers allows an increase of one-half of 1 percent to 1¾ percent (depending upon future changes in the CPI) on October 2, 1967, and again on September 30, 1968 (p. 1359); the 5-percent valuation placed on this contract was a general press estimate and not an official estimate.

Quality and a Pure Price Index

A Survey of the Problems Encountered In Accommodating Measures of Quality Change When Computing Pure Price Indexes

THOMAS W. GAVETT*

QUALITY CHANGE is the most pervasive problem in measuring economic phenomena. Failure to account adequately for quality differences does, at least to some extent, adversely affect our measures of output, productivity, and prices.

The argument over the change of quality is reducible to a few basic issues. First, what is the nature of a price index? A price index may purport to measure any of several different concepts, and the concept used affects the definition of quality change. Second, what concepts of quality change are appropriate for a particular price index? There may be more than one for a given index. Third, how can quality be measured? Empirically, what measures of quality change are appropriate?

A Pure Price Index

There is no one correct and indisputable definition of a price index. The index could attempt to measure the change in money expenditure a consumer must make to maintain a constant level of satisfaction. Such an index, now usually called a cost-of-living index, would take into account changes in income of consumers and substitution of one commodity for another in response to relative price changes, as well as general price level changes.[1]

The index of interest here, however, is a pure price index. For the purpose of this article, the pure price index is defined as a measure of change in the prices of a fixed group of goods and services bought and sold in markets. Basically, a pure price index does not differ in form from any fixed weight index, such as a Laspeyre's index. The group of goods and services cannot, in fact, be kept fixed because the characteristics of the products are changing, and the basic problem of quality change in a pure price index is to account for these changed characteristics.

Probably the most important distinction between a pure price index and other indexes, such as the cost-of-living index, is that its definition fixes the transaction unit. If automobile tires last longer, we must, nevertheless, report the change in the price of a tire, not a tire-mile. If new blankets are warmer, we still report the change in the price of a blanket, not a unit of warmth. If a doctor is able as a consequence of developments in medical technology to cure a patient more rapidly, we report the change in the price of a physician's services, not a cure. While the cost of a tire-mile, a unit of warmth, or a cure would be of interest for certain purposes, these do not represent transaction units actually used in the market place. A consumer cannot go to a store and ask the price of a unit of warmth; there is no price quotation available for such a unit.

This does not avoid the question of quality change, because if it is true that tires last longer or blankets are warmer, there are differences in the characteristics of yesterday's and today's tires and blankets which must be accounted for in the pure price index. Nor does it mean that the market

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[1] The literature on the cost-of-living index is voluminous. A good introduction is Melville J. Ulmer, *The Economic Theory of Cost of Living Index Numbers* (New York, Columbia University Press, 1949). An excellent article on the relationship of the cost-of-living index and a conventional Laspeyre price index is Nissan Liviatan and Don Patinkin, "On the Economic Theory of Index Numbers," *Economic Development and Cultural Change*, April 1961, pp. 502–536.

transactions unit is uniquely appropriate for every conceivable purpose. In a cost-of-living index, for example, a concept of service flows—such as transportation, entertainment, and nourishment—might be a useful pricing unit rather than specific products and services.[2]

Another characteristic of a pure price index is that, in principle, it does not reflect changes in patterns of consumption in response to changes in real income or relative prices. In practice, the goods and services priced are not held constant for extremely long periods of time. This is not because the characteristics of the products are changing (since that is the quality problem) but because an index measuring the change in the group of goods or services purchased in, say, 1900 would have little practical use in measuring the performance of the economy today.

Concepts of Quality Change

A pure price index attempts to measure the change in price that would have occurred if there had been no change in the characteristics of goods and services. The value of the changed characteristics represents the change in quality, which must be removed from the pure price index. Theoretically that value could be judged by three standards: Objective value, subjective value to the customer, and the cost of producing the changed physical features.

Using the objective-value approach would mean judging the change in the product by some standard or set of standards, such as the degree of warmth of the blanket. Such a standard is appealing as it more clearly corresponds to what most people probably believe is meant by quality. But it is the standard that must be rejected here as having no economic meaning and not consistently measurable.

In neither the case of consumer goods or services nor the case of goods purchased by a producer is there any reason to suppose that objective value is *the* critical determinant of prices. Certainly in the case of consumer goods and services it would be simple enough to think of some examples where, according to the judgment of experts, a product has zero or even negative objective value. Yet the product does command a positive price. There are also examples of where the difference between varieties of a product would hardly justify the price difference which does exist.

Expert judgment of the value of products is not constant over time; new information and further research bring new evaluations. Furthermore, the objective value of a product may differ depending on the standard used. A product may objectively contribute to our amusement but be injurious to our health. It may contribute to the speed of transportation but be detrimental to our safety. There is no theoretically correct way that conflicting objective standards can be blended to explain price determination.

Further, even if expert judgment would suggest a single standard, it is not true that buyers want an unlimited amount of that dominant characteristic or standard. If, for example, consumers are interested in a blanket which is twice as warm as an existing blanket, it does not follow that they are interested in blankets 10 or 100 times as warm. Certain objective standards also lead to difficult, if not insoluble, problems of measurement. Precisely how should the degree of safety be quantified, or what yardstick should be used to measure objectively the value of alternative forms of entertainment?

Costs Versus Utility

The difference in quality between two varieties of a product, or two different products, can be judged by comparing their relative costs or relative utilities (consumer satisfaction) at a given time. While the general prescription for measuring quality change appears simple, there are certain theoretical issues which should be raised.

First, it should be stressed that a pure price index measures the change in price after adjusting for change in relative costs or relative utility attributable to changed characteristics of the product. It is not measuring changes in all costs or utility over time.[3]

[2] See M. L. Burstein, "The Measurement of Quality Change in Consumer Durables," *The Manchester School of Economic and Social Studies,* September 1961, p. 269 and Zvi Griliches, "Notes on the Measurement of Price and Quality Change," *Models of Income Determination* (Princeton, Princeton University Press, 1964), p. 417.

[3] See Edward F. Denison, "Theoretical Aspects of Quality Change, Capital Consumption and New Capital Formation," *Problems in Capital Formation* (Princeton, Princeton University Press, 1957), pp. 215–261; and Milton Gilbert, "The Problem of Quality Changes and Index Numbers," *Monthly Labor Review,* September 1961, pp. 992–997.

Second, the difference between an evaluation of quality change based on costs and one based on utility may be zero.[4] In a perfectly competitive society, each consumer will, in the long run, balance his purchases so that the added satisfaction of each purchase, relative to the price of that item, is equal to the added satisfaction of any other item purchased relative to its price. Further, each firm in such a society will charge a price equal to its average cost (including normal profits).[5] If the price were above or below costs, firms would, accordingly, enter or leave the industry, thus causing price to equal costs in the long run. It is true, therefore, that at longrun competitive equilibrium relative prices measure both relative costs and utility.

The objection might legitimately be raised that the economy is not perfectly competitive and an equilibrium situation does not really exist. But if we retain for a moment the assumption of perfect competition, there is at least one other difficult theoretical issue to be resolved. Suppose that an improved product can be produced without increasing the cost. If the price tag on the product remains the same, what should we conclude about the quality-adjusted price of this product? Cost considerations alone would suggest that the adjusted price is the same, if costs of the improvement are zero.

This answer seems, at first blush, clearly wrong from the viewpoint of utility. After all, the product is better and the price tag is the same. Is it not clear that the consumer is getting more for his money? Should not the quality-adjusted price be lower rather than the same? Within the context of a pure price index, however, we must conclude that even utility consideration would lead to the conclusion that the quality-adjusted price is the same, not lower.

Let us assume that we can buy as large a quantity of a product as we wish at the existing price. The supply curve would, therefore, be as indicated in the chart. The quantity of the product demanded at various prices is represented by line D. When the product is improved, the demand increases to D′. Since the improvement involved no additional costs, the price remains the same relative to all others.

If the consumer increases his purchases of the commodity from Q_1 to Q_2—say, from 1 unit to 2 units of the product—the marginal utility of the last unit purchased remains the same, but his total utility has increased. To put it somewhat differently, the consumer surplus has increased from the triangle ABC to triangle AEF. (See chart.)

This increase in consumer surplus is not, however, attributable to a change in price but to a change in the quantity of the product purchased. That sort of gain in satisfaction is, however, excluded from a fixed weight index. Unquestionably, a fixed weight index is, to some degree, an inadequate measure of the change in satisfaction. But unless or until a true cost-of-living index is developed, there is no perfectly adequate measure of the change in utility or consumer surplus.[6]

There is a change of a different order which should also be discussed. We can use the celebrated case of the half birth control pill which does the job as effectively as a whole pill.[7] In this case there is no change in demand because the characteristics of the pill have changed, but because we have learned we need less. Obviously there are no changes in cost due to a change in the characteristics of the pill. Assuming the price tag on a whole pill remains the same, cost considerations indicate no necessity for quality adjustment of price. From the preceding analysis, we cannot, in a fixed weight index, take into consideration the change in the quantity purchased. It would appear, however, that we can gain the same utility with half the expenditures.

This case must, however, be excluded from either a pure price index or a true cost-of-living index on the grounds that it represents a change in tastes. The birth control example does not differ in principle from a case where consumers would conclude that they would be just as well

[4] See George Jaszi, "An Improved Way of Measuring Quality Change," *Review of Economics and Statistics*, August 1962, pp. 332–335.

[5] Normal profits are defined as that amount just adequate to keep the firm from going out of business. Obviously, this is an ambiguous definition for empirical measurement.

[6] The persistent problem seems to be the belief that changes in total utility should be reflected in a fixed weight index. Only changes in marginal utility can be reflected and, under competitive conditions, marginal utility must be proportionate to marginal costs. The chart may suggest an exaggerated notion of the gain in utility resulting from the quality change. The gain in consumer surplus (the area bounded by BCEF) is realized only if there is an increase in total expenditures (the same price times a large quantity). Since even a cost-of-living index must refer to a given level of real income, a doubling of money expenditures with constant prices is not possible. Rather, there is likely to be a shift in relative quantities purchased, yielding some increase in total utility, but less than the amount indicated in the chart.

[7] See the discussion by Griliches and Gilbert in *Monthly Labor Review*, May 1962, pp. 542–545.

satisfied with half as many tranquilizers, or half as much food, or half as much of anything.

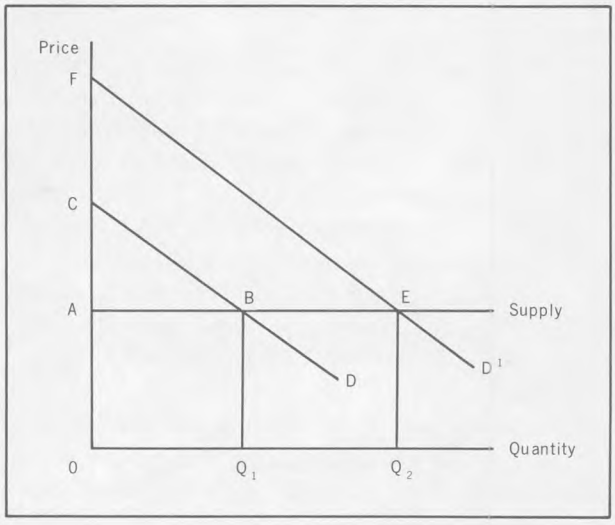
To summarize, there is no difference between the use of costs and utility as a measure of quality in a pure price index as long as we assume perfect competition. A pure price index is deficient for deflation of value aggregate or measurement of the true cost of living in that it does not consider changes in relative quantities purchased, and this is true relative to either costs or utility. The index does not consider changes in tastes, even if these changes are objectively desirable.

Empirical Measurement

Ideally, a method of measuring quality change should be applicable to any or all products and services and should potentially be capable of measuring any kind of quality change. Ideally too, measures should be able to distinguish between costs and utility if the two diverge as a consequence of imperfect competition or disequilibrium.

One of the most frequently advocated methods of measuring quality change is the use of regression analysis.[8] There is, in principle, no inconsistency in the use of regression analysis within the context of a pure price index. The regression method relates physical characteristics of varieties of a product to price and uses the regression coefficients for the characteristics as a measure of the value of the characteristics. While usually called a hedonic index to connote the idea that the coefficients are a measure of utility, the technique can as well be considered a method of measuring costs of the features. In its present state of development, it is not possible to determine whether the coefficients are measures of cost or utility or an amalgam of the two. Rather it must be assumed that costs and utility are one and the same, as would be true under perfect competition.

Illustration of Changes in Supply and Demand for Product with Changed Quality



One method of measuring quality change is to obtain information from manufacturers on the cost of changed characteristics of a product. This has the apparent advantage of providing exogenous information on not only prices but also costs. There are, however, difficult problems facing the manufacturer in imputing costs of a complex product among its various features. Either approach—regression or cost data from manufacturers—requires in principle a complete list of changed physical characteristics.[9]

Aside from measurement errors, regression analysis and cost data from manufacturers should yield identical answers under competitive conditions.

Comparison With CPI and WPI

Neither the Consumer Price Index nor the Wholesale Price Index is precisely compatible with a pure price index. There are, however, a number of similarities. All three indexes measure the changes in price of transaction units used in the market—a blanket, for example, rather than a degree of warmth; all three are fixed weight in-

[8] See Andrew Court, "Hedonic Price Indexes with Automotive Examples," *The Dynamics of Automobile Demand* (New York, General Motors Corp., 1939), pp. 99–117; Zvi Griliches, "Hedonic Price Indexes for Automobiles: An Econometric Analysis of Quality Changes," *Price Statistics of the Federal Government* (New York, National Bureau of Economic Research, 1961), pp. 173–196; Irma Adelman and Zvi Griliches, "On an Index of Quality Change," *Journal of the American Statistical Association*, September 1961, pp. 535–548; Richard Stone, *Quantity and Price Indexes in National Accounts* (Paris, Organization for European Economic Cooperation, 1956); Zvi Griliches, "Notes on the Measurement of Price and Quality Change," *Models of Income Determination* (Princeton, Princeton University Press, 1964); and a forthcoming paper by Irving Kravis and Robert Lipsey, "The Use of Regression Methods in International Price Comparisons," to be included in a study on international prices sponsored by the National Bureau of Economic Research.

[9] This does not mean that every changed feature is necessarily of great relevance. Cost data from manufacturers are likely to indicate that some physical changes are trivial. In regression analysis, intercorrelation among independent variables can allow one variable to serve as a proxy measure for several.

dexes.[10] While in effect the CPI and the WPI approach a pure price index in making adjustments for quality change, there are some dissimilarities.

In practice, different varieties of a product are frequently joined in the CPI and the WPI by linking prices of the varieties as of a common moment in time. This assumes that differences in prices are a measure of relative value. This procedure is not inconsistent with a pure price index. If perfect competition is assumed, the relative prices are a measure of both relative costs and relative utilities. Therefore, linking—where possible—properly compares both costs and utilities of the two varieties.[11]

Linking is not always possible, however, because there may be no overlapping observations. In such cases, a decision must be made as to whether the difference in price between two time periods is attributable, at least in part, to a change in quality or not. If no information is available from the manufacturer except the nature of the specification change, the commodity specialist makes a judgment on the basis of information he does have as to whether the quality difference accounts for a major or a minor part of the reported price difference. In the first case, the prices are linked over time; in the latter case, prices are directly compared.

If possible, an attempt is made to get the manufacturer of a changed product to estimate the proportion of the total price difference between the two varieties attributable to quality change. It is not always clear, however, whether the manufacturer's estimate is based on the added costs of changed features or his evaluation of the added value to the user.

In a very few cases, detailed data from the manufacturer of the cost (including markup) of changes in physical characteristics are used to adjust prices for changes in quality. At present, formal regression methods are not used explicitly or implicitly in either index for measurement of quality change.

In the use of cost data for measurement of quality change, there are differences in the handling of the data between the CPI and WPI and a pure price index. Within the WPI and the CPI, changes in costs are used as a proxy measure of changes in the value of new features to the user. However, costs may move in an opposite direction from judgments of value to the user. If the characteristics of a product have changed and the changed features did involve added costs, prices are not adjusted unless there is also some increase in the quality of the product judged by expert opinion. Similarly, if the cost of changed features is negative but there is no decrease in quality judged by the same standard, no adjustment is made.

If the changed features of a product are better but the changes were made at a reduced cost, prices are not adjusted. In this case, if adjustments were made, they would indicate a higher price, though costs were lower and expert judgment of quality higher.[12] Also, if changed features involve a decrease in quality similarly judged but at higher costs, there is no adjustment. Since in these cases costs appear to be an inadequate guide to the direction of movement of quality change, cost data are disregarded. If there were a better measure of usefulness available, it would presumably be followed instead.

Aside from these cases, there is no significant conceptual difference between the CPI and WPI and a pure price index in the handling of cost data.[13]

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[10] For a fuller description of the WPI, see *Handbook of Methods for Surveys and Studies* (BLS Bulletin 1458, 1966), pp. 91–105.

[11] This ignores sampling problems. Since neither index prices all varieties of all products, linking can produce different results if the link is made immediately after a new variety appears or after it has been on the market for a long period of time. The general rule in the CPI and WPI is to price the volume leader. If the link is made at the time a new variety becomes the volume leader, one cannot be sure that the results would be the same as if both varieties had been continuously priced with varying weights reflecting changing sales volumes of the two varieties. There is no uniquely correct time when a link should be made if the two varieties are both on the market for an extended period of time.

[12] This represents to many the classic dilemma in the use of cost data for quality adjustment. See, for example, Richard and Nancy Ruggles, "Concepts of Real Capital Stocks and Services," *Output, Input, and Productivity Measurement* (Princeton, Princeton University Press, 1961), pp. 392–393. Conceptually, there is no special problem within the context of a pure price index and the principle does not differ from the zero cost case discussed above. It may appear to lead to some peculiarities in the interpretation or application of the price index, but the peculiarities are inherent properties of any sort of fixed weight index.

[13] For a fuller discussion of CPI and WPI techniques on quality change, see Ethel D. Hoover, "The CPI and Problems of Quality Change," *Monthly Labor Review*, November 1961, pp. 1175–1185; and Margaret S. Stotz, "Introductory Prices of 1966 Automobile Models," *Monthly Labor Review*, February 1966, pp. 178–181. It should be added that the conceptual differences between a pure price index and the official indexes may be self cancelling or, at least, of small magnitude empirically.

A Review Essay

Education and the Wealth of Nations

An Examination of the Contribution of Effective Educational Planning to the Economic Growth of a Nation

HAROLD L. ENARSON*

IN Watts and Nigeria, South Chicago and Brazil—everywhere the cry of governments is for more education as the cure for poverty. Not education for the salvation of man or of particular men, but education as a contributor to stability and to the wealth of nations. As the Decade of Development falters and the Alliance for Progress becomes an embarrassing reminder of pretentious promises, rich nations and poor nations alike ponder the source of their wealth. The new breed of development economists proclaim a new faith; it is human resource development, human capital formation, investment in people; it is—forgive the old-fashioned word—Education!

The Need to Know

This comes as no surprise to educators. Their confidence in the power of their craft is almost without limit. The Egyptian fellaheen, dim-witted in the sloth of centuries of tradition, and the American exurbanite, sharp-witted in weighing the comparative advantage of Yale and Michigan, believe that in education lies opportunity for their children.

In rich and poor lands alike, education—like sex—is deemed a good thing. But, as with sex, the concern is more obsessive than critical. Only the analytical few wish to think critically; even fewer insist on thinking quantitatively; and even fewer (happily!) hold that unless you think quantitatively you do not think.

Teachers and parents are not alone in believing in education. Corporations, cities, states, and nations preach the gospel of education. Corporate heads in Hamburg and Chicago take the lead in establishing technical institutes and research centers; cities compete for the prizes of that greatest of smokeless industries, the new university; cities and states and regions compete for the plums of great new science laboratories, and the new nations of Africa discover education even as the old nations of Europe embrace education with a new fervor.

It is not entirely fair to suggest that only in the past several decades have the economists discovered education. (Adam Smith has much to say about education.) But only recently have first-rate economists put their energy and skills to rigorous and formal analysis of the economics of educational investment. It was quite recently that Theodore Schultz devoted his presidential address before the American Economic Association to education as human capital formation. And only in the past decade has a new literature on the economics of education come into being.

In the world's hunger and illiteracy belt (and the two go hand in hand), we repeatedly find: poorly prepared teachers; rote learning; pitiful facilities; unyielding educational bureaucracies; scarcity of the bare minimums (paper, pencil, health care, food supplements) as well as of the

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laboratory equipment required for an introduction to the age of science; curricula, books, and programs badly outmoded and irrelevant to the obvious needs of the country; heavy investments in primary education alongside meager investments in secondary education; preoccupation with buildings to the neglect of program; obsessive hunger for new universities, along with neglect of technical, professional, and subprofessional programs relevant to better health, better agriculture, better management; appalling rates of dropout at each level of the educational pyramid, with extraordinarily high costs per unit of production (i.e., per person graduating); frightful imbalances—as symbolized by India's surplus of lawyers and "educated" generalists in the face of great shortages of agronomists, engineers, and technicians of all sorts; and perhaps most distressing of all, tendencies to imitate Western models rather than fashion a system of education appropriate to the country.

In the early days of foreign assistance, the prescriptions were often marvelously simple. The plea was for the export of American (or German or Japanese) "know-how," for reorganization of the Ministry of Education, for the export of books in quantity (including discarded U.S. texts for Africa!), for crash programs of teacher training, for the creation of land-grant type universities (and M.I.T.'s in miniature), for faculty exchange programs, and for the development of technical schools that stressed "working with one's hands."

Human Development

In the face of vast and overwhelming needs, any honest effort appeared worthwhile. The poor countries have been told repeatedly that they must have a development plan, including a plan for "human resource development." And there is hardly a country anywhere that does not have a plan—on paper. Meanwhile, the massive problems of education have mounted, and there is today as never before a search for shortcuts and fresh strategies. The poor insist that they cannot await the slow evolution of modern educational systems. They want the Instant University, Instant Literacy, Instant Technology. And the development economists who guide the economic investment policies in the world's poverty belt are eager to embrace the new economics of planned investment in capital formation.

So what have the economists to say to the educators? The 1963 Annual Conference of the International Economics Association was devoted to "The Economics of Education." The Conference papers have been assembled by E. A. G. Robinson and J. E. Vaizey.[1] The 24 papers are ambitious and comprehensive. They deal with national expenditure comparisons, "education, research, and other unidentified factors in growth," and education and economic progress in OECD countries. Also included are studies of Turkey and Japan and the USSR, measures of the contribution of education to economic growth, demand and supply factors, and criteria for public expenditures on education. The balance of education—between various levels of education as well as between general education and technical or vocational training—is also discussed. Two papers on international education carry the exhausted reader to a 172-page "summary."

It is too bad that someone did not digest the undigestible and produce a more slender volume of essays. The distressing truth is that there is not yet much hard new knowledge that will make the new economics operational. The unarguable conclusion is that high rates of investment in education and rapid economic growth are closely related. Perhaps the most impressive "data" lie in the achievements of two underdeveloped Nations, Russia and Japan, who some years ago deliberately made heavy investments in the education of their people as a key element in rapid modernization. (The reprint of S. G. Strumilin's article, published in Moscow in 1925, is a distinct service.) Although the exact "chemistry" of the interaction between investment in education and national prosperity is not known, the evidence seems to suggest that education is a good investment.

In economics, as in law, general propositions do not decide concrete cases. Admittedly, a rigorous concern for economy and productivity is long overdue. Studies of rates of dropout illuminate the vast wastage: There is need for a balance among levels and types of education and distribution of investment among education, health, transportation, and other necessary programs. However, if the Robinson-Vaizey volume is any index, the

[1] See *The Economics of Education: Proceedings of a Conference Held by the International Economic Association* (New York, St. Martin's Press, 1966). $16.

economists are still a long way from explicit formulations that can serve as detailed guides to the development planners. The state of the art does not go very far beyond shrewd observation and common sense judgments. The worst of the economists have brought jargon and mountains of data to the scene; the best have brought insight born of on-site investigations in the developing countries. Most of the economists appear to bring a kind of petulance to the educational scene. They really seem to be saying to governments: "Be rational, i.e., make politically unpalatable decisions." And to educators: "Be innovative; redesign the entire system, restructure the schools and the offerings, shift the emphasis, embrace the new technologies, etc."

This may be good advice, but it is advice that has been almost universally ignored. Governments and school systems live untouched by the new gospels of economy and efficiency of the high priests of economics. Why? Dr. C. E. Beeby, onetime Director of Education for New Zealand, thinks that more than human stubbornness explains the lethargy of governments and of school systems, and he has written a splendid little book to prove his point.[2] Beeby is a professional educator and a cracking good one. He begins with a confession: "I lectured for years on education but cannot recall having made, before 1945, a single reference to the fact that half the world was illiterate. I doubt if I even knew it." (Such engaging candor appears nowhere in the Robinson-Vaizey book.)

Unhurried Growth

Beeby's point, of course, is that until very recently most educators gave very little thought to strategies of educational investment and even less to the massive problems of education in the Congo or Asia or Latin America. The educators, in his words, "were too deeply absorbed in solving practical problems to have time to draw the lessons from our own findings or to encompass the old and the new in a fresh body of theory; we were so busy saving souls that we neglected our theology." Beeby gives the economist-critic his due: "The genius of the economist lay in seeking statistical proof of this relation [the economic relation of the educational system to the community]—even if he has not found it, and in expressing the idea in the language the man of affairs commonly uses in thinking of other investments."

Thus, Beeby welcomes the economist's contribution to the quantitative analysis but insists that "the quality of education lies squarely in the domain of the educator, and he will only have himself to blame if he fails to balance the theories of the economist concerning educational planning with theories of his own which no one but he can provide—this is the central theme of the book." Except, thankfully, it really isn't. The quality vs. quantity dichotomy is at best deceptive, at worst, meaningless. Beeby's great contribution is to explain in simple terms why it is pointless, and even harmful, to expect the poor countries to telescope a half century of development in 5 or 10 years. He asks that we understand the conservatism of the teacher and the school system in order that we can get sensibly at the task of reform. Few, if any, shortcuts are available. There are, Beeby argues, certain stages of growth through which all school systems must pass: "Although a system may be helped to speed up its progress, it cannot leapfrog a stage or major portion of a stage because its position on the scale of development is determined by two factors, the level of general education of the teachers, and the amount of training they have received." At each level of preparation, the teacher (primary teacher in his analysis) can embrace some degree of change. The teacher can progress from near-illiteracy and disorganization to rote learning methods. And teachers dependent on rote learning can be helped to the first steps toward emphasis on critical learning. But there can be no Great Leaps Forward; the poorly prepared teacher in the bush cannot be expected to embrace the new technologies. By the same token, entire school systems are not to be quickly converted to conform to the model designed by the development economist. Nor are universities, technical institutes, and all other elements in a national educational system to be redesigned in accordance with an economically rational strategy of investment. Beeby's implicit criticisms of the economist-expert on education cut deep. He asserts the paramount value of a higher logic, one that embraces the stubbornnesses of men and policies and politics and institutions along with the logic of economic rationality.

[2] See *The Quality of Education in Developing Countries* (Cambridge, Mass., Harvard University Press, 1966). $3.95.

Traditions and Economics

Studies and grand strategies for poor countries are legion. However, it is rare that a "developed" nation takes the same medicine. The Robbins' study of Britain's higher education system was a first-rate study conducted by a first-rate economist. Now we have a splendid body of essays by Lord Robbins, largely in defense of the Robbins' report.[3]

It is a marvelous book, not only because Robbins is master of his craft (he surmounts mere information and jargon) and master of the English language, but because the essays illustrate admirably the frustrations that beset one when the attempt is made to apply the logic of organization to the reality of institutional life. (Oxford, we learn, would be "too big" if it were to go beyond adding 4,000 graduate students to the present undergraduate body of 7,500.)

As for cost-benefit analysis, Lord Robbins found it impossible to give an economic justification for the large additional expenditures proposed. He states, "Quite frankly, I do not see how, in the present state of knowledge, any quantitative statement can be made about the social returns at these new margins . . . I submit that, in general, decisions of this sort have to be made on grounds other than calculations of the pecuniary return to investment in human capital . . . Even within the limits of the so-called economic justification, I am also clear that the questions we have to ask are very largely of a nature which precludes quantification."

And indeed they are! In the reform of education, whether in Britain, Nigeria, or Home State, USA, we deal inescapably with the weight of tradition, the momentum and vitality of institutions, the convictions of educators and politicians as well as with the "economics" of education. In Robbins' book, we return, as we always must, to issues of public policy in which sentiment and belief and prejudice mix and blur and intertwine with the quantitative constructs and the logic of organization. With him, we rediscover the glory of the Oxbridge universities, sense the new thrust and dynamism of the Red Brick universities and the Technical Institutes, admit the political reality of the public demand for more university spaces, are reminded that the public interest in education leads everywhere and inexorably to greater control over the direction of universities as part of systems and subsystems.

Overdue Coalition

We share Robbins' rueful admiration for the ancient universities, where "much of the most elementary statistical information . . . was wrapt in almost impenetrable obscurity." It will be a sad day when the power of the state is joined with the logic of organization to control universities, either new or old. It is important that economists ask hard questions about the economics of education, but it is even more important that educators continue to be charged with finding the answers. The British, more than any other people, sense that the university is a very special and delicate institution, that it flourishes best in a climate of freedom, and that even at considerable cost it must enjoy, as Robbins puts it, "a substantial insulation from irrelevant political intrusions."

If universities are the least prescribed, least regulated, the least "planned" of all our educational levels, they are also the most productive, the most creative, the most promising. In last analysis, it is the university community which will provide the seminal ideas that enable the less developed countries to pursue the Greater Glory of Man and the Wealth of Nations.

But how does one deal constructively with the organization of the highest of high-level talent at the very apex of the educational pyramid? The economists interested in education found it far easier to travel to France for an international conference than to climb the disciplinary boundaries separating them from the professional educators on their own campus. Plainly, economist and educator must soon join hands; their alienation from one another, distressing at home, is intolerable as they travel overseas to give expert advice to the poor nations. We deal, in short, with problems of our own making, which ought to make us a bit more humble, whether as economists or educators, when we consult in the developing countries on problems of their making.

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[3] Lord Robbins, *The University in the Modern World* (New York, St. Martin's Press, 1966). $6.

Additional Papers From the IRRA

EDITOR'S NOTE.—*The following articles conclude the Review's excerpts from papers given at the IRRA winter meetings in San Francisco. Other papers were published in the February issue. As before, titles and subtitles have been added, as well as necessary transitions. Cuts have not been indicated.*

Processing Employment Discrimination Cases

ALFRED W. BLUMROSEN*

TITLE VII of the Civil Rights Act of 1964 is the first Federal legislation designed to eliminate discrimination in employment. It established the Equal Employment Opportunity Commission (EEOC), to investigate complaints of discrimination based on race, religion, sex, or national origin; determine if there is "reasonable cause" to believe the allegations; and attempt to conciliate the matter. If conciliation fails, the individual employee may sue in a Federal court, and the Attorney General may institute a Federal court suit if he believes there is a pattern or practice of discrimination.

As introduced in the House of Representatives, the bill proposed giving the Commission powers to conduct hearings and issue orders if conciliation failed. The House removed the hearing powers from the bill, and the Senate deprived the Commission of power to sue, which was vested in the individual complaint and the Attorney General. The Commission retained only the power to ask the Attorney General to sue.

Supporters of civil rights legislation were disappointed at this course of legislative development which, in their view, watered down the original conception of a powerful Commission and turned it into a toothless tiger. They have supported, and the Commission has supported, legislation which would give the Commission the hearing powers that had been proposed originally. The proposal to give hearing and order-issuing powers to the Commission carries with it implicitly the elimination of the individual right to sue. While this is not a necessary consequence of endowing the Commission with cease and desist powers, it is contemplated in present versions of proposed legislation.

We are thus confronted with two competing models for administrative processing of employment discrimination cases: The present statutory scheme with its emphasis on the individual right to sue, and the proposed scheme with its emphasis on the powers of the agency to hold hearings and issue orders.

At present, when a complaint of employment discrimination is submitted to the Commission, it is investigated and, subsequently, the Commission makes a written determination as to whether there is reasonable cause to believe the charges to be true. If the Commission finds cause, all relevant parties are notified and conciliation is attempted. In the conciliation process, the individual charging party is constantly consulted, and the outcome of a successful conciliation is an agreement to which he is a party.

The existence of the individual right to sue permeates this entire process, beginning with the reasonable cause finding itself. What are the implications of the individual right to sue for this process of conciliation, and for the successful achievement of the objective of the statute?

The classic "liberal" view is that the individual right to sue is not meaningful in the field of social legislation. Individual suits require initiative,

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knowledge of rights, willingness to undertake delay and expense, and possible liability for attorney fees. Many disadvantaged persons are unwilling to complain at all about their condition, much less engage in the serious business of litigation. Thus the individual right to sue is a shadow without substance.

Recent developments under Title VII cast some doubt on this view. First is the extensive activity under Title VII of Negro organizations such as the National Association for the Advancement of Colored People and the Legal Defense and Education Fund. These organizations have instituted many suits—possibly as many as 50—under Title VII, and have advised and counseled in many others, during the first year under the statute. The organization of minority-group persons for the purpose of asserting legal rights in the employment field is relatively new. Second, the sex provision of the act has worked in such a way that women employees have found it relatively easy to obtain counsel. Third, several suits that have been settled involved substantial attorney fees in the settlement. The largest monetary settlement today is the backpay in a sex case settled for more than $35,000.

In these situations, the "assistance of counsel" was provided, which is necessary if the individual right to sue is to work. Thus, the individual litigant under Title VII is rarely alone or unorganized, but rather is part of a formal or informal organization set up to assert Title VII claims. Pressed under the "individual rights" of Title VII, these claims are also "group claims," representing the group interests of the minority discriminated against. The individual right, then, has become a vehicle by which these group interests are asserted. The group interest has breathed life into what might have been a sterile conception of individual rights to sue.

Another reason frequently given for the administrative processing of litigation under social legislation is the unfriendly attitude of the courts. It is too early to tell whether this will be a compelling reason under Title VII. Thus far, we have had only one decision on the merits of a case; but virtually every Federal judge who has been confronted with a Title VII matter has strongly urged that the parties conciliate, and many settlements have resulted from this initial judicial response to the case.

There is one further dimension to the individual right to litigate which should be explored here. The consequence of litigation or the risk of litigation has its impact on the personnel involved in handling the discrimination problem on both sides. Where suit has been instituted or is in the offing, it is very likely that local officials of either management or union will be subject to guidance, and sometimes outright direction, from home-office attorneys or other personnel, who view the risk of litigation as a serious matter. Local personnel are directly and often emotionally involved in their existing employment relations system, and the introduction of higher level officials and attorneys is generally advantageous in terms of securing a settlement. The intervention of lawyers has, on the whole, contributed favorably to the settlement of cases. The lawyers have not approached the cases with their eyes on the distant portals of the Supreme Court, but with the desire to settle and eliminate the problems involved. Where they have determined to litigate, I doubt that the availability of the Commission as a hearing tribunal would seriously have influenced them.

The existence of the individual right to litigate means that the possibility of settlement, as well as the litigation prospects, are not controlled by the Government. Control is shared with the individual. Counsel for the charging party thus has a significant role to play in shaping the nature of settlements under Title VII as he advises his clients, makes recommendations to Commission conciliators, and sometimes engages in direct negotiations with the respondents. It is this retention of control by counsel which lies at the heart of the Title VII procedures as presently constituted. If they were modified, counsel for the charging party would be less influential in shaping the conciliation and litigation effort. If control of the process rested in the hands of the Government, the attorney for the respondent could focus all of his energies on the Government, without being as concerned for the charging party as is now often the case. In short, a change in the statutory system would have a subtle effect on all of the relationships which have been described, in a direction which would reduce the individual's control over his own case. This would be one cost of the change, a cost which should be weighed carefully.

Discriminatory Promotion Systems

PETER B. DOERINGER*

FEW COLLECTIVE AGREEMENTS contain provisions which explicitly disadvantage Negroes. Instead, the definition of promotion units, transfer rights between units, promotion criteria, and patterns of hiring and assigning employees to units are used to limit the Negro's advancement opportunity.

The patterns of racial discrimination in promotion systems can, for the most part, be divided into three broad categories. The least common type consists of two functionally identical progression lines within a single department, one Negro and the other white. A more typical arrangement involves restricting Negroes to the lower paying job classifications and progression lines within a department. The third type of discriminatory promotion system restricts Negroes to separate units such as labor pools, less desirable production departments, or unskilled job classifications which are not connected to other promotion units. Here the functional relationships between the Negro and white promotion units are less clear or nonexistent. Discrimination of this type may also be reinforced by bargaining unit boundaries, as when different promotion units are represented by different unions or when certain groups—laborers, janitors, and the like—are not included within any bargaining unit.

Such segregated promotion units may be formally established or may exist informally through tacit arrangements which permit only white employees to transfer into more desirable job classifications or to acquire permanent employment rights in those job classifications. The net result of these systems has been to reduce economic opportunities of Negroes and to limit their opportunities to acquire either the requisite in-plant training or the seniority credits to enable them to compete for promotion on an equal basis with white employees.

Proposed Remedies

Remedies for discriminatory promotion systems may be divided into two types—those involving changes in the scope of the promotion unit or the linkage between units, and those involving changes in the rules governing the priorities for interunit and intraunit promotions and transfers. Remedies of both types can be combined in a variety of ways to suit the particular conditions surrounding each discriminatory promotion system. While they can all be implemented voluntarily through collective bargaining procedures, distinctions may be drawn among them on the basis of equity of distribution of the costs of the remedy among the parties, and the degree to which they are required by Title VII of the Civil Rights Act of 1964.

Consider, for example, the type of remedy in which white and Negro promotion units are merged in a manner which permits Negro employees to move into only those vacancies in the previously white job classifications for which white employees hold no prior promotion expectations. Such remedies do not create any significant additional training costs for the employer, nor do the white employees bear any costs of reduced promotion opportunities. By permitting the white employees to exercise training and seniority previously acquired under the discriminatory system, a period of transition is established during which Negro employees are unable to compete for promotions on an equal basis with whites. Thus Negro employees continue to bear, for this transition period, the implicit costs of reduced promotion opportunities.

An alternative remedy which recognizes these transition costs is to permit Negroes to advance into job vacancies for which whites held priority rights under the previous promotion system. This would include, for example, broadening the scope of the promotion unit in which length of service credits can be exercised in job bidding, and relaxing the ability criteria to be used in evaluating an employee's qualifications for promotion. When ability qualifications are maintained while the scope of the unit in which seniority rights are exercised is broadened, any increase in the advancement rates of Negro employees will come entirely at the expense of reduced promotion opportunities for the white employees, with no costs being incurred by the employer. If ability standards are relaxed, however, the employer shares some of the remedy costs by providing additional train-

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ing with each promotion. In the extreme case, in which senior Negroes are allowed to displace junior white incumbents regardless of ability, the cost of the remedy is borne exclusively by the employer and the white employees.

Protection of Prior Rights

Since the legislative history protects a limited set of established rights and standards within promotion system, it constrains, to some degree, the types of remedies which the courts can require. Moreover, it is difficult to assert, within the limits set by these constraints, that any specific remedy is determined by the act.

Any solution which the courts can require will have certain practical disadvantages. Remedies which permit Negro employees to transfer into only those vacancies in previously white job classifications to which white employees hold no prior claims will prevent them from competing on equal terms with their white peers. If the courts recognize this inequity and endorse some form of remedy which rearranges promotion rights or job security, the following disadvantages will accrue: The remedy will be meaningless if Negroes lack the qualifications required for upgrading; the distribution of the costs of the remedy between the respondents will be excessively imbalanced, where the employer will not bear any additional training costs and the union might even encourage a stricter interpretation of the ability clause to protect white promotion opportunities; and the discretionary latitude inherent in the application of the ability clause when determining the qualification of Negroes for promotion may make the remedy technically difficult to enforce if the employer and the union are not firmly committed to accepting it.

Alternative Solutions

These disadvantages, in my view, indicate that the types of solutions which the courts can require are likely to be more limited and less effective than those which are available through voluntary negotiation. Therefore, in order to encourage a voluntary development of meaningful remedies, the courts might well adopt, where necessary, a position which would impose some costs upon the respondents. One alternative which the courts might accept, for example, is to expand the scope of the promotion unit to encompass both Negro and white job classifications, combined with a broadening of the criteria governing promotions to include an employee's recent training and training potential as well as his ability and seniority. This remedy has the advantage of permitting each promotion to be handled on an individual basis within the plant, and permits a wider range of relevant considerations to be applied in determining eligibility for promotion.

A second, and in the long run more satisfactory, alternative is to have the employees currently in Negro promotion units or progression sequences be given preferential access rights to the entry jobs in the previously white units. However, since it does not provide Negro employees with any opportunities to acquire nonentry jobs in the white unit commensurate with their seniority or ability, this reorganization should be considered as only a partial fulfillment of the obligation of the union and the employer to eliminate discrimination. The quid pro quo for this waiver by the Negro employees should be that they receive additional compensation, and, most important, additional training, both to ensure their qualification for promotion to the previously white unit when job vacancies occur and to develop more general skills.

Such a solution will provide fewer immediate economic advantages for particularly well qualified Negro employees than can perhaps be required by the act. It will, however, more effectively serve the longrun interests of the Negro employees, as a class, by ensuring that more of them will be qualified for advancement and that such advancement will not require the sacrifice of income or job security. Moreover, it provides a mechanism through which the employer and the union can share the costs, rather than penalizing specific individuals who may not have been responsible for the discrimination. Perhaps more important, this solution permits the parties to the complaint to exercise wider discretion in fashioning remedies, through a collective bargaining process which recognizes the diversity of competing needs and preferences within the plant.

The Effect of Economic Change on the Michigan Labor Force

PETER S. BARTH*

THIS PAPER attempts to summarize a larger study designed to explore the responsiveness of the labor force to changes in economic conditions. The main question was, does the labor force expand, contract, or remain unchanged as unemployment rates change? In an effort to answer this and other relevant questions, the labor force of a heavily industrialized urban center, the Detroit Standard Metropolitan Statistical Area, was analyzed as was that of the relatively unindustrialized Upper Peninsula of Michigan, a chronically depressed area.[1]

The study revealed that the relationship between aggregate unemployment rates in an area and participation rates for various male age groups, taking account of the industrial composition of the area and the median level of educational attainment, was not significant for any of the six male age classes studied. However, the sign of the coefficient of the unemployment variable was negative for 5 of the 6 classifications, lending a very slight weight to the discouraged worker hypothesis. A very strong positive correlation was found to exist between the median level of education in an area and participation rates of males 65 years and older. This apparently reflects the generally more prolonged attachment of professional persons to the labor force. Labor force participation rates of women, except those age 14 to 17 and 65 and over, were significantly and inversely correlated to unemployment rates. This finding is in accord with the discouraged worker hypothesis.

A positive relationship exists between median educational attainment levels of women over 24 years and participation rates for all age classes 25 years and over and is statistically significant in 4 of these 5 categories.

The regression analysis using time series data for the State as a whole indicated that the flow of workers out of the labor force during periods of high or rising unemployment outweighed that of the secondary workers who entered the labor force during such times.

The pattern of migration varies with the area under analysis. During the period from mid-1951 to mid-1956, both Detroit and the entire State of Michigan experienced net in-migration. This corresponds to periods of generally low unemployment rates in both areas. From mid-1956 to mid-1962, a period of high unemployment rates, the State and Detroit lost population through migration. This trend was ended in 1963, a good year economically for Michigan, when net in-migration occurred for Detroit and the State experienced almost no net movement of population.

Reliable estimates of unemployment in Michigan were available only for 1956–63. A simple regression was estimated so that the rate of net migration for the State was a function of the unemployment rate. When that regression was found to be not significant, a new regression was estimated with an index composed of the unemployment rate in Michigan over that in the United States as the explanatory variable. The findings suggest that the decision to leave an area like Michigan or refrain from moving into it is based on conditions other than simply those which exist in that area.

In the Upper Peninsula, the Detroit Standard Metropolitan Statistical Area, and in the State of Michigan (excluding these two areas), labor force participation rates declined from 1956 to 1962. The absolute and relative declines were greatest in the Upper Peninsula, the area which consistently suffered the highest unemployment rates over the period. In Detroit the absolute and relative declines in labor force participation rates were greater than in the rest of the State. The latter area suffered lower unemployment rates over this period than did Detroit. Moreover, as Detroit and the Upper Peninsula experienced an economic upswing in 1963, the consistently downward trend of participation rates was reversed in these areas. Although not conclusive by themselves, these factors along with the earlier cited findings lend further support to the applicability of the discouraged worker hypothesis to the State.

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[1] In the multivariate analysis here, cross-sectional data from the 1960 decennial census were used. The key hypotheses tested were that participation rates were associated with other economic aggregates, such as unemployment, and that these variables affected various age and sex groups differently. Labor force participation rates for 12 age-sex classifications (covering the entire population of 14 years and over) were taken for the 52 areas in Michigan which were defined by the Bureau of Employment Security as labor market areas.

In a time series analysis, seasonally adjusted unemployment rates in the State over time, together with a variable representing the proportion to total population of persons whose unemployment insurance benefits had been exhausted in that period, were regressed participation rates.

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Technological Displacement As a Micro Phenomenon

HERBERT E. STRINER*

THIS PAPER is concerned primarily with two features of the report completed a year ago by the National Commission on Technology, Automation, and Economic Progress.[1] They are: (1) the Commission's assumptions which underlie the report, and (2) the data and methodology that were used on the conduct of the research.

In order to meet its legislative charge, the Commission had to be concerned with productivity, rates of innovation and technological change, and the projected impacts of technology upon employment up to the year 1975. Quite properly, the Commission undertook no research in these complex areas but leaned on the existing fund of knowledge.

Selected Projections

The Commission's key assumption, based on the Bureau of Labor Statistics projection of unemployment for 1975, was that the level of unemployment that year would not be high. The overall assumption of the meaningfulness of this projection or of any gross measure of unemployment for the problem of technological displacement foredooms dealing with this problem. For the problem is not a gross one; it is one which exists in the interstices and at the edges of our huge economy—so huge, indeed, that even minor percentages can involve extremely large numbers of people who need help. Such interstitial problems call for data, methodologies, and monitoring techniques which the Commission could not, and did not, become sufficiently concerned about because of the euphoric paralysis of its initial assumption concerning the low level of unemployment in 1975.

Using correlation techniques, the BLS researchers indicated (in the appendix to the report) that an assumed level of 4-percent unemployment, rather than the Commission's assigned 3 percent, would result in somewhat more than 1 million additional unemployed, with over half of these located in the manufacturing sector. The researchers are quite explicit about the serious caveats one would normally expect with this type of projection. All of which weakens considerably the Commission's rather optimistic use of this methodology in assessing the likely impact of technological changes on employment in 1975.

Innovation and Productivity

The major burden of the Commission's message on rates of change and diffusion is that although things happen faster nowadays, the lag between discovery and commercial application is still substantial so that whatever technology can affect employment by 1975 must already be "in the works." This may be so, but Mansfield's paper in the appendix (vol. II, pp. 97–132) contains two items which limit acceptance of his average lag of 14 years from the process of invention to commercial innovation. Mansfield warns us of his average, indicating that the range of lag-times for diffusion varied from 0.9 to 15 years for acceptance by 50 percent of the logical user firms.

Although the report warns that "output for man-hour is not, of course, a measure of technical progress alone," it does not shrink from an almost immediate acceptance of this measure as an adequate guide. But this index is one of the most difficult and mischievous ones in the entire field of index numbers, with regard to both construction and credibility.

I contend that for any policy dealing with technological change, productivity indexes must relate to specific industries. The very crux of the measurement of technological impact is the fact that it is for *each industry* that it must be measured, not in the aggregate. This is entirely missed in the global viewpoint of the Commission. Technological change and its consequent employment and other economic impacts are highly uneven among industries. The central problem in perceiving technological change is to understand that it is a disaggregated problem.

The "Shape-Up" Hypothesis

A major contention of the report is that, given a sufficiently high and sustained rate of overall eco-

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[1] For a summary of the Commission's report, see *Monthly Labor Review*, March 1966, pp. 274–277.

nomic growth, the general level of unemployment can be reduced well below 4 percent. The Commission looked upon reduction of the unemployment rate (from 5.1 percent in August 1964, when the Commission was chartered, to 4.0 percent at the end of 1965, when the report was completed) as ample evidence that a continued high level of economic growth would reduce the level further. This aura of optimism was placed within the framework of what the Commission referred to as a "shapeup." The employed tend to be those near the beginning, the unemployed near the end of the shapeup line. The report stated further that, "Only as demand rises will employers reach further down the line in their search for employees."

During the 10-month period following this conclusion, the economy has maintained its peak level of activity, but the general level of unemployment has remained so close to 4 percent as to be statistically undifferentiated. What is truly interesting is the shift in the unemployment rates for those at the head of the shapeup as opposed to those toward the end of the line.

First, let us define this shapeup line. The beginning would include the prime age group of white persons—that is, the white males, age 25 years and over. The end of the line is probably composed of Negroes and younger workers (16 and 17 years old), both white and nonwhite.

As we all know, during the period since issuance of the report, the economy has continued to expand. The job market had tightened to the point where, in October 1966, over half of those unemployed had been jobless for 5 weeks or less. In contrast, the number of long-term unemployed (15 weeks or longer) declined by 200,000 over the year. Those at the head of the line showed a drop in the unemployment level.

Did this augur well for the end of the line? No: The level of unemployment for the nonwhite group was 7.0 percent in January 1966. By October 1966, it had risen to 7.6 percent. And, for the 16 and 17 year-old group, both white and nonwhite, during the same period the unemployment rate remained at 14.7 percent.

Manpower in 1975

A vital task given by the Commission to BLS was that of estimating projected requirements in 1975 for employment by major occupation groups. These projections were made, but they were not capable of meeting the real needs of the Commission. To begin with, as Lee Hansen so well demonstrated in his paper a year ago at these meetings, BLS projects "actuals" rather than "requirements." The projection represents an inevitable outcome of the economic environment that the projection is attempting to capture. The occupational requirements used by the Commission is a distribution implied by the assumptions, and no more. This statement is so obvious that one might question why I bother to make it. The reason grows out of my contention that the Commission's inclusion and use of BLS "requirements" data for 1975 explicitly are supposed to indicate "new job requirements and the major types of worker displacement . . . likely to occur during the next 10 years." The Commission chooses to answer by accepting a series of assumptions which obliterate the very problem under investigation. Unemployment is assumed to be 3 percent; no major changes in technology are envisioned as being possible in terms of anything less than roughly 14 years; and the categories of occupation are so broad as to defy any meaningful discussion regarding skills or job descriptions.

Was this Commission, or any similar Commission, in a position really to deal with the problem assigned to it? I believe not.

There are many major reasons why this is so. They all grow out of the fact that the nature and magnitude of technological change has never been such as to cause unemployment both so large and so sudden as to be discerned in a macro situation. All past experience tends to indicate not only that technology does not cause sudden, massive unemployment, but that it probably occurs at widely varying rates *between* firms within an industry. The effects of innovation and dissemination of technology on employment are, I believe, a micro phenomenon, not a macro one. To study it and its various implications, we must have data which are designed for entirely different categories than much of our current series, and we must use our methodologies in a manner consistent with micro phenomena. The fact is that minute errors which cancel out so nicely in aggregate analysis often represent extremely large numbers of people in the absolute sense.

Means of Adjustment to Technological Displacement

JOSEPH A. PICHLER*

THE STUDY of worker adjustments to unemployment caused by technological and market changes is not new in the field of industrial relations. At least 20 major analyses of shutdowns had been published when the present study was undertaken. The present research extends the displacement literature by assessing the contributions of provisions for training, severance pay, and interplant transfer to the adjustment patterns of displaced workers.

Interview data were provided by workers from three shuttered plants: Armour and Co., Fort Worth, Tex. (closed in the summer of 1962); Armour and Co., Sioux City, Iowa (closed June 1963); and the Studebaker Co., South Bend, Ind. (closed December 1963). Interviews were held roughly 1 year after each shutdown. The Armour Automation Fund Committee sponsored the field work for the first two cases. The respective State and local employment offices were most cooperative during all phases of the research.

Factors Determining Choice

Distributions of age, education, race, and preshutdown skill level were prepared in order to measure their effect on the displaced workers' choices among provisions. It was predicted that acceptance of training would show a negative association with age. This prediction was validated by the one-variable tables in Fort Worth and South Bend; results in Sioux City were in the same direction, but the tendency was much less pronounced.

Educational achievement was also expected to be negatively related to the acceptance of training. Findings were in a direction opposite to that predicted: In all cities, the proportion of workers accepting training was a positive function of educational achievement.

The analysis of the influence of age upon transfer yielded particularly interesting results. It was hypothesized that acceptance of transfer would be negatively related to age. The data, however, yielded a flat distribution. Except for men who were below 30, 20 percent of each age group transferred. A subanalysis showed that acceptance of transfer and seniority were strongly correlated.

The influences of race and preshutdown skill upon the choice process were also examined. Negroes from the Armour plants were significantly less likely to accept training than whites; no racial difference was found in South Bend. Negroes were also twice as likely to transfer as whites with comparable education. Given the possibility of encountering racial barriers in the local labor market, the job security afforded by transfer was of particular importance to these men.

The relationship between skill and acceptance of training was as expected: Unskilled men and those with skills not transferable across industry lines were more likely to train than men with widely usable skills.

Employment Consequences

One measure of the effect of shutdown provisions upon adjustments is the degree to which they improve reemployment prospects. Performance in this respect was determined by computing unemployment rates for workers who chose each provision. Computation of gross unemployment rates for the trainees yielded these results: In Fort Worth, the trainee rate was lower than the nontrainee (11 as against 30 percent); the nontrainee rate was lower in Sioux City (28 and 33 percent); and in South Bend, the rates were identical (22 percent).

Given the influence of age, education, and skill rate upon reemployment prospects, it was important that these factors be controlled in the analysis. Findings on age were particularly interesting. Fort Worth trainees of all ages fared better than nontrainees on the reemployment criterion. However, while the unemployment rate of nontrainees rose steadily with age, the rate for trainees in the highest age group (50–59 years) was below the younger groups. Results were parallel in Sioux City and South Bend.

Educational analysis did not significantly qualify the aggregate findings in Fort Worth and Sioux City. Fort Worth trainees had lower unemployment rates than nontrainees at every level of edu-

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cation. Sioux City nontrainee rates were above those of trainees for all groups except those with 8 years of schooling or less. In South Bend, nontrainees with at least 1 year of high school had unemployment rates below those of trainees.

The skill rating of each respondent's preshutdown job was classified according to the *Dictionary of Occupational Titles*. An estimate of the transferability of skill across industry lines was also made. Training's effect, independent of skill, was then determined. Trainees in all skill classes enjoyed a lower unemployment rate than nontrainees in Fort Worth, but no such effect was observed in the other cities.

The questionnaire data yielded no clue as to why training was apparently successful in reducing unemployment only in Fort Worth, although there are some external data which suggest an explanation.[1]

A second criterion of training's effect was the skill mobility among workers who found reemployment. Changes in the preshutdown and postshutdown skill level of each worker's occupation were measured, and trainees in all cities were shown to have experienced considerably greater upward mobility than nontrainees. Results were significant at less than the 10-percent level for 5 of the 6 categories which could be analyzed.

Earnings provided a third measure of training's effect. All workers were stratified by preshutdown skill levels, and weekly wages after reemployment were computed. Results were quite inconclusive. Five of the seven comparisons yielded a positive training increment ranging from $4 to $18 per week; one indicated no difference; and the last showed a $3 earnings difference in favor of the nontrainees. Only the $18 difference was significant at less than 10 percent.

In summary, judgments of training's effect on job market adjustments vary with the criterion chosen. By the unemployment rate standard, training was a clear success only in Fort Worth, although the older trainees in Sioux City and South Bend fared better than their nontrained peers. Nor did training appear to exert a consistent effect upon postshutdown earnings. On the other hand, trainees in all cities enjoyed greater upward skill mobility than nontrainees—a development which indicates that their longrun wage progression prospects may have been enhanced.

[1] Shultz and Weber have indicated that the Fort Worth economy took an upward turn between the date of the shutdown and the surveys, so that employment opportunities improved. When trainees entered the labor market with their new skills, the market was ready to receive them. No similar economic resurgence occurred in Sioux City or South Bend during the period studied. It may be that some increase in aggregate demand was needed to utilize the changes in the skill structure of supply. (See George P. Shultz and Arnold R. Weber, "A Report to the Armour Automation Fund Committee on the Placement and Retraining Experience of Workers Displaced by the Shutdown of the Main Armour Plant in Fort Worth, Tex.," mimeographed, p. 4.)

Income and Expenditures

The overall impression from the analysis of income and expenditure adjustments and from secondary labor force data is that trainees made the greatest changes in living patterns. Even with the subsistence allowance, they apparently shouldered a sizable personal cost in order to acquire a new skill.

On the other hand, transferees made the least severe change in living standards. Indeed they were the only group with earnings above the preshutdown level.

The study was rounded out by an analysis of severance pay usage and an investigation of the nonoccupational experience of transferees. Over half of the workers from the Armour plants spent most of their severance pay for debt payment or living expenses. Most of the others either saved their payment or used it to finance self-employment. There was some indication that the payment influenced the reemployment rate in Fort Worth. When that sample was grouped by age and dichotomized about the median severance pay figure, the upper half of the distributions showed either a longer lag between layoff and reemployment or a higher proportion with no postshutdown employment experience.

Despite the mobility problems, the transfer option appears to have been the most effective mechanism for adjustment to shutdown. This statement holds true for virtually all of the adjustment criteria used: employment rates, pay scales, and living standards. There is also some subjective evidence indicating that transferees were the group most satisfied with the provision chosen. All Sioux City respondents were asked, "Do you wish that you had chosen some other provision after the shutdown?" The proportions answering in the affirmative were 2 percent for transferees, 44 percent for nontrainees, and 47 percent for trainees.

Defense Expenditures In Depressed Areas

IRWIN GRAY*

THE DEPARTMENT OF DEFENSE through its procurement activities creates more employment opportunities than any other agency in or out of Government. The effect of such spending in stimulating the growth of jobs has led to proposals to channel contracts to other areas in which unemployment is severe and new industries are needed. Would the unemployed worker really benefit from the increased defense activity in his area? To help answer the question, and to analyze the conditions under which the aid might be effective, let us look at the type of worker defense industries need and the type of worker who is unemployed in the depressed areas, and examine the extent of the mismatch (if any) between the two.

Defense Job Requirements

Work forces of 84 defense firms in five industry classifications [1] were grouped on a sample basis into seven job-entrant categories according to skill and education. A person applying for a job at a given level would have to meet one of these requirements, briefly stated as follows:

0 to 4 years of school, no vocational skills.
5 to 7 years of school, or vocational skills only.
8 years of school.
9 to 11 years of school, or 8th grade plus skills.
12 years of school, high school diploma.
13–15 years of school, junior college or equivalent, or high school diploma plus specialized vocational skills.
16 or more years of school, college, or advance degree(s).

The requirements stated are those which the firms have established; whether these are too high or too low in relation to what they actually need for the work performed is a matter that is beyond the scope of this paper.

Study of the data revealed no significant variation in education requirements associated with different size classifications of the plants. It also showed that there is less variation in skill requirements, from industry to industry, than might have been expected. In four of the industries, over 95 percent of the work force must possess at least a high school education. Over 65 percent must possess schooling beyond that point; a third or more of the workers must have at least a college education.

The high skill of the defense plants' work forces is further emphasized by the composition of the aggregate defense labor force. The defense industries require about two-thirds of their job entrants to meet the requirements of the two topmost skill-education categories. By contrast, less than one-third of the employed nonagricultural labor force of the United States would fall into these categories. Defense work requires twice the number of people with a college education and more than twice the number with 13 to 15 years of school (or specialized skill) than does the nonagricultural labor force. Furthermore, in all the lesser categories of skill-education (with the exception of those in the 5 to 7-years or skills-only group), the proportion of workers in the nonagricultural labor force is higher than for a potential defense work force. The relatively large percentage of defense jobs in the 5 to 7-years group is due to several large facilities which produce munitions and electronic components—items well suited to high-volume automated production lines and the use of less-skilled production (and materials handling) workers.

New Plants in Depressed Areas

Figures illustrating the occupational distribution of the unemployed labor force in 120 urban industrial depressed areas and on a national basis disclose that unemployment has affected the blue-collar worker proportionately more than the white-collar worker. Only 15 percent of the unemployed were in the latter occupations in the depressed areas compared with 21 percent nationally. (Among the employed, white-collar workers make up 46 percent of the U.S. labor force.)

Information about the educational qualifications of the unemployed was obtained by converting the information about the occupational distributions into educational distributions. The distribution for unemployed workers in the depressed area was not substantially different from that of the unemployed work force all over the country. Both, however, have a relatively small percentage of

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[1] Aircraft-missiles; communications-electronics-instruments; ordnance and accessories; electromechanical apparatus; and a miscellaneous class.

workers in the two topmost education levels—a forewarning that we will have a mismatch when we compare the requirements of defense work with the characteristics of the unemployed.

The central question now is, to what extent would a new defense plant reduce unemployment in a depressed area?

We start with a wide discrepancy between the qualifications of the unemployed and the requirements of the defense industries. While less than 4 percent of the unemployed have a college degree, defense work requires that 30 percent of its work force possess a degree; only about 7 percent of the unemployed have 13–15 years of schooling, while defense work requires that 33 percent of the work force fall into this category. At lesser education levels, the depressed areas have a surfeit of potential applicants vis-a-vis the potential openings, to such a degree that few of the applicants could get jobs. Overall, the defense skill levels at which the largest number of employees are required are just the ones at which the fewest persons are available from among the unemployed.

For a more explicit estimation of the imbalance between supply and demand, a model was set up in which the computer matched each firm's job openings with workers in an area. The results may be summarized as follows:

1. In general, the larger the defense facility, the greater its impact in reducing the unemployment in an area.

2. The percentage of a facility's job openings filled increases as the area labor-pool size increases, but the change is on the order of 10 percent even as the labor pool doubles. In short, companies hiring 1,000–1,500 workers cannot expect to fill more than about 35 percent of their openings (from among the unemployed), regardless of the size of the area involved. The percentage of positions filled drops 3 to 5 percent every time the plant size doubles, down to about 10 percent for a 20,000-worker facility. The company migrating into a depressed area will have to take many employed people away from other firms or import their own workers because the mismatch here is due to lack of education on the part of the unemployed and not to lack of certain skills. While a company might be willing to train workers to impart a specific vocational skill, it is doubtful that a company would undertake to provide remedial training to compensate for a lack of a basic education. Since defense requirements are basically for highly educated persons, the company's willingness to provide vocational training would not make up for the lack of education on the part of the unemployed.

3. In every plant-area match, almost 100 percent of the unemployed white-collar workers found jobs.[2] Beyond this point, however, employment (by occupation) fell off rapidly. Unemployed laborers showed the least improvement in employment status—less than 10 percent found jobs even with the biggest firms.

4. The key element in determining the degree to which a plant was beneficial in reducing unemployment was its need for workers at various job educational levels (not just the two or three topmost levels). The best "results" were obtained by the following types of facility:

(a) A facility which employed about 6,000 workers, absorbed 85 percent of the unemployed even in the largest labor pool, was in the missile and aircraft business, and would accept up to 40 percent of the incoming work force without a high school education. This facility, however, could fill only 35 percent of its needs from among the unemployed. The most typical plant in the aircraft and missile business, it may be noted here, employs about 17,000 workers at one location and accepts only about 3 percent of its work force with less than a high school education.

(b) A facility which employed about 3,000 workers and could absorb about 46 percent of an area's unemployed workers, was in the instrument-communications-equipment business, and would allow about 30 percent of its work force to have less than a high school education. This plant would fill about 41 percent of its needs from the unemployed worker labor pool. The most typical installation in the instrument business is rather small—about 150 workers—and has less than 5 percent of its work force in categories below a high school education.

The present study suggests that public policy intent on bringing new industry into depressed areas might be centered on labor-intensive industries and those which do not concentrate on products requiring a highly educated work force.

[2] The results here are preliminary.

National Wage Policies in Europe and the U.S.

E. M. KASSALOW*

PERHAPS THE MOST IMPORTANT LESSON to be learned from experience with wage or income policies or controls in the post-World War II period is that in terms of quantitative economic measurement, it is difficult to prove anything definitively as to the effectiveness of these control efforts. If it can be assumed that a principal objective of any wage or income policy is to restrict upward price movements to less than they would have been in the absence of such a policy, the available data are not encouraging to the advocates of wage controls. One could almost conclude from these data that a case could be made that the absence of formal wage policies yields better price results.

While the "figures" don't make a clear case for or against wage or income controls, certain nonquantitative conclusions and ideas suggest themselves from the experience of those nations which have experimented with wage policy systems in one form or another.[1]

Labor and Wage Control

In the first place, it seems that to gain acceptance, a wage control system must allow for participation of labor and management in the decision-making machinery. This can take the Austrian form of a wage-price council with unions and management formally represented on it. In labor's case, it may merely be sufficient if there is a labor or socialist government. If the government is a coalition in Europe, it has generally been deemed wise to place a labor representative or a socialist in the crucial labor or finance ministry, either of which may have responsibility for wage policy. One of the keys to the successful operation of national wage policy during World War II in the United States was its tripartite structure. Under this system, unions and management had equal representation, along with public members, in policy formulation and administration.

Furthermore, controls over wages alone are not likely to be tolerated by the unions very long. Wage controls provoke a labor counterdemand for price control, profits control, dividend limitations, and the like. Unless these equity claims are met, the operation of wage controls will not be a durable affair. In Austria, this possibility is lessened by the fact that the control council, with union representation on it, has jurisdiction over wages and prices.

On the whole, European experience usually reveals that unless other income streams and prices are subject to some control, union cooperation will not be forthcoming. The failure of the British Conservative Government to control nonwage incomes, for example, was one of the reasons for the almost peremptory refusal of the Trades Union Congress (TUC) to cooperate in the control program proposed in the early 1960's.

This problem of relative equity and the containment of other than wage incomes has produced strange twists in bargaining relationships in some countries. In 1964, the Danish Federation of Trade Unions and the chief employers' organization in that country adopted a new procedure for negotiation, as they agreed "to aim at seeing that this income policy embraces all recipients of income in the society." It was also agreed that this would involve joint pressure upon the Government whose "legislative powers are able to secure this objective." The union had felt that after the 1961 agreement, "those who draw incomes outside of the trade union movement . . . succeeded in securing far greater income advances than did the workers . . . The trade union movement wishes there to be no recurrence of this . . ."[2]

We have had a similar example of labor's demand for "equal sacrifice" right here in the United States during the past year. While continuing to express hostility to the so-called guideposts, President George Meany of the AFL–CIO has indicated labor's willingness to cooperate in a national emergency "overall stabilization" program saying: "If the President concludes there is such a national emergency as to require extraordinary overall stabilization measures, he will have the complete wholehearted support of the labor movement. This would mean every economic factor—all costs, prices, profits, wages—being equally restrained. All America would be sharing

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[1] Included here are voluntary based efforts such as the so-called "frame" or nationwide single bargain for private manual workers in Sweden (and to some extent Denmark and Norway), as well as the formal systems employed in Austria or the Netherlands, and more recently in Great Britain.

[2] *Economic and Social Bulletin,* International Confederation of Free Trade Unions, Brussels, November–December 1964, p. 16.

equally the costs and the sacrifices of a national problem." [3]

Effects on Unions

Judging from the varied experience of European nations, it would seem that some trade union movements are better able to cope with and endure incomes or wage control policies than others. Generally speaking, where there is a deeper tradition of worker solidarity and acceptance of the principle that there should be wide power in the hands of the center of the labor movement, it is easier to implement an incomes policy.

The rather long "tolerance" of some forms of wage control policy in the Netherlands, Austria, and Sweden seems clearly due, in part, to these factors. The failure of Britain's efforts at voluntary income controls, on the other hand, seems due, in part, to the fact that solidarity within the TUC is not very strong. A TUC mission to Sweden a few years ago compared the labor movements of the two countries by concluding that, "The real difference lies in the sense of collective purpose that pervades the Swedish movement; in this sense there is no British trade union movement but only a collection of trade unions . . ." [4]

The statement was almost prophetic. Under a labor government in 1965 and 1966, the British labor movement, and the whole British society, simply proved unequal to the task of operating a voluntary, central, uniform wage policy.

Does the extraordinary British experience have any particular lessons for the United States? On the purely trade union side, what is disturbing is that in terms of structure and policies, the AFL–CIO probably more resembles the TUC than any other movement in the world, right down to the crucial characteristic that affiliated unions jealously guard their bargaining power from intrusion by any central federation. Their members have less of that "sense of collective purpose" characteristic of the Swedish and other movements.[5] If, then, the United States had to operate a serious wage control policy in peacetime, it could depend on voluntarism probably no more than the British.

A national wage policy entails an increase of power at the top of the labor movement. Arguments over an acceptable formula, decisions on exemptions, pressure on government, and countering strike threats—all these functions tend to enhance the centralizing forces in the movement. Furthermore, the "political" activity of the labor movement receives considerable thrust as incomes policy spreads into tax policy, full employment policy, and the like. This, too, strengthens the central body of the movement.

The maintenance of a national wage policy is also likely to have the effect of accelerating the rate of unionization. The formulation and administration of such a policy almost invariably entails some consultation with and a role for the trade unions. The unorganized groups of wage or salary earners are likely to be voiceless in the process. The complaint in Britain of the independent Society of Civil Servants, which has recently felt the necessity to reconsider its independence from the TUC, is typical, as it judged that the Labor Government's "declaration of intent on prices and incomes meant that negotiations must take place through the TUC." [6]

As the foregoing suggests, the ramifications of national wage policies are likely to be very wide. Their lasting effects on unions, management, and industrial relations systems are considerable. Yet they show signs of spreading, even though their economic effectiveness still remains a subject for inquiry and debate.

One final general observation suggests itself, as Western European and American experience is viewed in retrospect. The very act of coming to grips with wage-price relationships can be an educational exercise for union and management leaders. Reviewing the problems of productivity and incomes on a *national* level is likely to be a more objective process, for labor and management, than wrestling with wages and prices at their own industry and firm level. The result may be to create a national bargaining atmosphere which makes for greater restraint and responsibility as regards the setting of both wages and prices. This is, however, only a tentative conclusion.

[3] Quoted by AFL–CIO Research Director Nathaniel Goldfinger, in *News From the AFL–CIO*, Feb. 14, 1966.

[4] *Sweden, Its Unions and Industrial Relations* (London, Trades Union Congress, 1963), p. 23.

[5] This should not be taken too literally. It is well to recall that the great wage drift over the negotiated national wage formula, which persists in Sweden and other countries, belies any absolute solidarity. In part, the drift reflects the push of more skilled workers to take advantage of their superior market position. But the general point that there is less "class" solidarity in Britain than in Sweden, Austria, Denmark, and some other continental countries remains true.

[6] *The Guardian* (Manchester, daily), May 21, 1965.

Employment and Wage Trends in Bell System Companies

L. Earl Lewis and Joseph C. Bush*

Employment levels, occupational requirements, and wage rates in Bell System telephone companies have changed substantially during the past 20 years.[1] Changes in employment were first influenced by a rapid period of expansion, then by the introduction of new types of automatic equipment which resulted in a reduced work force. Although there has been a steady rise in wage rates, the value of the pay adjustments has varied over time and among occupations.

Employment

Total employment (except officials and managerial assistants) in Bell System companies was 621,734 in December 1965, 67.5 percent higher than in October 1945. (See table 1.) Year-to-year changes in employment, however, were not uniform during the 20-year period, which may be divided in three parts to describe employment trends. The first, which covers a 12-year period, is characterized by an almost uninterrupted increase in employment which terminated with a peak of 659,468 in October 1957. The second part includes 5 successive years of declining employment. The third is the last 3 years of the series, during which employment again increased each year.

As would be expected, the largest change in employment occurred immediately after World War II, with an increase of 32 percent between October 1945 and October 1946. Employment continued to increase at a considerably reduced rate, in all but 2 of the next 11 years as the telephone industry attempted to meet the ever-increasing demands of the public. The 5-percent decline between October 1948 and October 1949 was due largely to a reduction in the number of persons being trained as switchboard operators and to a reduction of construction and installation employees. Most of the 2-percent decline between October 1953 and October 1954 can be attributed to the smaller number of switchboard operator trainees. During each of the next 2 years, employment increased by slightly more than 5 percent. The increase in employment between October 1956 and 1957 was relatively slight, reflecting a cutback in the number of telephone operators as the companies made more use of automatic equipment.

Employment declined 8 percent between October 1957 and October 1958, as the installation of improved equipment permitted a sharp reduction in the number of telephone operators and the companies made some reductions in their construction work force. During each of the next 4 years, total employment declined—almost entirely as a result of the reduction in the number of telephone operators. The December 1962 employment was 20,000 less than reported 10 years earlier.

Beginning in 1963, and for the next 2 years, total employment increased in Bell System companies. Employment increases during these 3 years were reflected in nearly all major occupational categories.

Data for telephone carriers were first tabulated by location in 1951, when nine regions were established by BLS.[2] Since that year, there have been

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[1] Data on employment and pay rates in this article were obtained from annual reports filed with the Federal Communications Commission by the Bell System telephone companies as required by the amended Communication Act of 1934. These reports have been tabulated and published by the Bureau of Labor Statistics since 1947; prior to 1947, information was published by FCC. The payroll period to which the data refer was changed from October to December, beginning with the 1961 reports. Bell System telephone companies have accounted for about nine-tenths of the employment in the telephone industry during the entire period covered by this study.

[2] Although these tabulations include information for non-Bell companies, their combined employment was less than 5 percent of the total and their exclusion, therefore, would not effect any significant changes in the tabulations.

The regions established for study were defined as follows: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—Delaware, New Jersey, New York, and Pennsylvania; *Great Lakes*—Illinois, Indiana, Michigan, Ohio, and Wisconsin; *Chesapeake*—District of Columbia, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee; *North Central*—Iowa, Minnesota, Nebraska, North Dakota, and South Dakota; *South Central*—Arkansas, Kansas, Missouri, Oklahoma, and Texas (except El Paso County); *Mountain*—Arizona, Colorado, Idaho (south of the Salmon River), Montana, Nevada, New Mexico, Texas (El Paso County), Utah, and Wyoming; and *Pacific*—California, Idaho (north of Salmon River), Oregon, and Washington.

only slight changes in the regional distribution of employment. The proportion of employees in the Middle Atlantic region declined from 22.4 percent in 1951 to 20.3 percent in 1965; similarly, the proportion of workers in the Great Lakes region declined from 18.6 percent to 16.9 percent. The largest gains were reported for the Southeast and Pacific regions where employment increased by about one-third between 1951 and 1965. The Pacific region accounted for 12.8 percent of the total work force in 1951, compared with 15.3 percent in 1965; in the Southeast, the increase was from 10.2 percent to 12.2 percent.

Occupational Classifications. The preceding paragraphs have described significant changes in occupational staffing among Bell System companies during the past 20 years. To summarize, the proportion of workers employed as telephone operators has declined sharply, while the relative importance of nearly all other occupational groups has increased in varying degrees. Table 2 indicates that the proportion of workers employed as telephone operators declined by nearly one-half between 1945 and 1965.

The telephone operator category was the only major occupational group in which the number of employees declined during the 20-year period—from 195,424 in 1945 to 172,696 in 1965. The group accounted for more than one-half (52.6 percent) of the total employment in the earlier period, compared with only slightly more than one-fourth (27.8 percent) in 1965. Although the proportion of employees working as telephone operators declined between 1945 and 1955, their number increased during this period. It was not until 1957 that a significant decline in the number of telephone operators was reported. Between 1957 and 1964, there was a steady decline in both the number and proportion of workers employed in this classification. In 1965, the number increased approximately 7,000 (4.3 percent) over 1964; the large majority of this increase was composed of workers classified as operators in training.

The proportion of workers engaged in construction, installation, and maintenance tasks increased from slightly more than one-sixth in 1945 to nearly three-tenths in 1965. Although employment in this broad classification has increased throughout the 20-year period, the greatest increase occurred in the years following World War II. Between 1945 and 1950, the number of such employees nearly doubled and their proportion of total employment increased to nearly one-fourth.

The proportion of employees in clerical positions edged upward during the first 15 years covered by the study—from one-sixth in 1945 to slightly more than one-fifth in 1960—and has remained about the same during the past 5 years.

Three groups of employees (business office and sales; building, supplies, and motor vehicle; and professional and semiprofessional) each accounted for between 4 and 5 percent of the total work force

TABLE 1. NUMBER AND AVERAGE HOURLY RATES OF EMPLOYEES IN BELL SYSTEM TELEPHONE COMPANIES, OCTOBER 1945–DECEMBER 1965

Month and year	Employees [1]		Average hourly rates [2]	Increase in average hourly rates during year	
	Total (in thousands)	Percent, women		Cents per hour	Percent
October 1945	371.3	73	$0.99		
October 1946	491.6	70	1.15	16	16.2
October 1947	520.7	68	1.28	13	11.3
October 1948	548.4	67	1.35	7	5.5
October 1949	522.2	66	1.45	10	7.4
October 1950	526.8	66	1.54	9	6.2
October 1951	563.7	67	1.63	9	5.8
October 1952	592.6	67	1.74	11	6.7
October 1953	604.0	66	1.84	10	5.7
October 1954	592.6	65	1.92	8	4.3
October 1955	625.0	63	1.97	5	2.6
October 1956	658.0	62	2.05	8	4.1
October 1957	659.5	61	2.18	13	6.3
October 1958	609.2	59	2.33	15	6.9
October 1959	598.5	58	2.45	12	5.2
October 1960	596.7	58	2.57	12	4.9
December 1961	575.8	57	2.70	13	5.1
December 1962	572.7	56	2.81	11	4.1
December 1963	580.8	56	2.91	10	3.6
December 1964	599.1	56	2.99	8	2.7
December 1965	621.7	56	3.07	8	2.7

[1] All employees except officials and managerial assistants.
[2] See text footnote 3 for definition of pay data used in this article.

TABLE 2. PERCENT DISTRIBUTION OF ALL EMPLOYEES [1] BY OCCUPATION, 1945 TO 1965

Occupation	Oct. 1945	Oct. 1950	Oct. 1955	Oct. 1960	Dec. 1965
All employees	100.0	100.0	100.0	100.0	100.0
Telephone operators (all classes)	52.6	43.4	37.5	30.8	27.8
Experienced switchboard operators	29.0	30.9	24.9	22.2	17.8
Operators in training	15.0	6.5	6.8	4.2	6.1
Construction, installation, and maintenance	17.2	23.6	25.0	28.1	29.1
Installation and exchange repairmen	5.9	7.9	8.5	10.0	10.7
Central office craftsmen	5.1	6.4	7.2	8.5	9.6
Line, cable, and conduit craftsmen	4.0	6.3	6.1	5.8	4.9
Clerical employees	16.5	18.2	20.8	21.7	21.8
Nonsupervisory employees	15.3	17.0	19.2	19.8	20.2
Supervisory	1.2	1.3	1.6	1.9	1.6
Business office and sales employees	4.7	5.4	6.3	7.4	7.7
Building, supplies, and motor vehicle employees	4.5	4.2	4.1	4.2	3.4
Professional and semiprofessional employees	4.4	5.0	6.2	7.7	9.9

[1] Except officials and managerial assistants.

in 1945. Although the number of workers in each group had increased, the building, supplies, and motor vehicle employees group was proportionately less important in 1965 than in 1945. The other two groups had increased in proportional weight as well as in numbers.

Men and Women. Women constituted 73 percent of the total work force in 1945, compared with only 56 percent in 1965. This decline was almost entirely due to the reduction in the number of telephone operators, nearly all of whom were women. Although women's share of the professional and semiprofessional, business and sales office, and clerical jobs increased during the period, these increases were not numerically sufficient to offset the loss from the telephone operators' classification.

Earnings

Basic wage rates [3] of employees in Bell System companies averaged $3.07 an hour in December 1965, an increase of 210 percent from the average of 99 cents in October 1945. In percentage terms, the increase in average hourly rates of pay was much greater in the first 5-year period than in any of the three others. Between 1945 and 1950, the average increased nearly 56 percent, compared with 28 percent between 1950 and 1955, 30 percent during the next 5 years, and slightly less than 20 percent between October 1960 and December 1965. For each of the last 2 years in the series, the rate of increase has been 2.7 percent, the lowest during the 20-year period, with the exception of 1954–55 when the increase amounted to 2.6 percent. The largest percentage increases were recorded immediately after World War II: a 16-percent increase between 1945 and 1946 and an 11-percent increase between 1946 and 1947.

Table 3. Average Hourly Earnings and Amount of Increase by Occupation, October 1945 and December 1965

Occupation	Average hourly earnings		Amount of increase	
	October 1945	December 1965	Cents	Percent
All employees (except officials and managerial assistants)	$0.99	$3.07	208	210
Building service employees (except foremen and mechanics)	.73	2.06	133	182
Experienced switchboard operators	.74	2.21	147	199
Nonsupervisory clerical employees	.87	2.37	150	172
Nonsupervisory business office and sales employees	1.05	2.88	183	174
Linemen	1.17	2.65	148	126
PBX and station installers	1.37	3.35	198	145
Central office repairmen	1.46	3.27	181	124
Cable splicers	1.49	3.42	193	130
Exchange repairmen	1.52	3.56	204	134
Professional and semiprofessional employees	2.34	5.37	303	129

Table 4. Average Pay Rates of Selected Occupations

Occupation	Expressed as a percent of the average for nonsupervisory clerical employees		
	October 1945	October 1955	December 1965
Building service employees (except foremen and mechanics)	84	88	87
Experienced switchboard operators	85	94	93
Nonsupervisory business office and sales employees	121	120	122
Linemen	134	114	112
PBX and station installers	157	141	141
Central office repairmen	168	142	138
Cable splicers	171	145	144
Exchange repairmen	175	157	150
Professional and semiprofessional employees	269	240	227

The increases in average wage rates for all employees were largely due to a series of general wage increases that were provided over the 20-year period. Collective bargaining agreements that have covered periods longer than a year (for example, 36 or 38 months) have provided for a reopening on wage rates after 12 months rather than a negotiated deferred increase.[4] There were, however, other factors that affected the extent of the changes in average rates of pay. Important among such factors were changes in the occupational composition of the work force and significant changes in hiring practices.

As indicated in the section on employment, the occupational composition of the total work force in Bell System companies changed considerably during the period. This had a substantial impact on the overall earnings level. It is estimated that of the $2.08 increase in average hourly earnings for all employees between October 1945 and December

[3] The pay data contained in this article were computed by dividing scheduled weekly compensation by scheduled weekly hours. "Scheduled weekly compensation," as defined by FCC, includes the basic weekly pay rate plus any regularly scheduled supplementary compensation, such as differential for evening and night tours and certain perquisites. It excludes pay for overtime work and pay in excess of weekday rates for Sunday and holiday work.

[4] The major labor organization in the industry is the Communication Workers of America. Frequently, workers in different departments (e.g., traffic, plant, accounting, commercial) of the same company are covered under separate collective bargaining agreements.

1965, 41 cents resulted from changes in the occupational makeup of the industry. Weighting occupational averages for December 1965 by occupational employments for October 1945 resulted in an average of $2.66 instead of $3.07. Year-to-year earnings comparisons are particularly subject to this type of impact. During a period of unusual expansion, such as occurred immediately after World War II, the proportion of relatively high-paid construction and installation workers increased substantially, causing an increase in the average wage for all workers that is unrelated to any actual change in wage rates.

Changes in hiring practices also have an impact on the average wage levels because of the wide range of rates that apply to most occupations. Differences between the starting and maximum rates for a specific job and locality frequently amount to 100 percent or more. Advancement from the starting to the maximum rate often involves from 10 to 14 step increases, extending over a 5- or 6-year period. During periods of an unusual increase in hiring, the average wage rate for all workers is affected by a proportionate increase in the number of workers paid at the minimum rate for the job. That is, the increase in the average for all workers was not as large as it would have been if the average length-of-service had remained the same.

Occupations. The increase in average wage rates between 1945 and 1965 has been greater for some occupational groups than for others. Cent-per-hour increases tended to be greatest for the high-wage occupations, but as indicated in table 3, the largest percentage increases were reported for the low-wage occupations.

[5] Regional information on wages, as for employment, in this article includes non-Bell companies. As indicated previously, however, they constitute such a small proportion of the total that their exclusion would not appreciably change the computations.

TABLE 5. AVERAGE HOURLY PAY RATES OF BELL SYSTEM TELEPHONE CO. EMPLOYEES BY REGION, OCTOBER 1951 AND DECEMBER 1965

Region	Expressed as a percent of the Middle Atlantic average		Percent increase in the average between 1951 and 1965
	October 1951	December 1965	
United States	96	93	89
New England	98	95	89
Middle Atlantic	100	100	94
Great Lakes	99	95	85
Chesapeake	96	91	83
Southeast	83	81	89
North Central	86	87	96
South Central	85	83	90
Mountain	85	88	101
Pacific	103	98	84

Most of the narrowing of occupational wage differentials occurred in the first half of the 20-year period. There has been very little change in the wage relationships for most of the occupations between 1955 and 1965. (See table 4.)

Regional Wage Levels. In each of the nine regions, average hourly rates of pay of all employees were more than 80 percent higher in December 1965 than in October 1951, the first time that information was tabulated by region.[5] Compared with an increase of 89 percent for all regions combined, individual increases during the 14-year period ranged from 83 percent in the Chesapeake to 101 percent in the Mountain region. These differences resulted in a change of pay rankings among the regions. In October 1951, the Pacific region had the highest average ($1.73), 5 cents above the Middle Atlantic and 6 cents above the average in the Great Lakes region. In December 1965, however, pay rates averaged highest in the Middle Atlantic region ($3.26), 7 cents more than in the Pacific region and 15 cents more than in the Great Lakes region. In both years, the lowest average was reported for the Southeast region. The changes in regional pay rankings are illustrated in table 5.

Statisticians are members of a professional group. It is important that they use their abilities to enhance our knowledge. . . . It is also important for them to remember that the sun shines on the whole world, and that there is a place not only for statisticians but for many other groups, even for theoreticians.

—"The Uses and Limits of Statistics in Manpower Research," *Monthly Labor Review*, August 1954.

Wages in Fertilizer Plants, March–April 1966

STRAIGHT-TIME EARNINGS of production and related workers in the fertilizer manufacturing industry averaged $1.90 an hour in March–April 1966, according to a survey conducted by the Bureau of Labor Statistics.[1] The average was 23 cents higher than in April 1962 when a similar survey was conducted.[2] Of the 25,484 workers covered by the current study (nearly all men and nearly all paid time rates), 12 percent earned $1.25 but less than $1.30, with earnings of the remaining workers distributed over a comparatively broad range. Thirty-seven percent of the industry's work force was in the Southeast, where earnings averaged $1.57 an hour, substantially less than in other regions. In each region, earnings varied by type and size of establishment, size of community, type of sales market, labor-management contract status, and occupation. Most of the workers were in plants providing paid holidays, vacations, and various types of health and insurance benefits to year-round workers.

The payroll reference dates were selected to coincide with a near-peak annual employment period for the industry (which varies somewhat by locality). Approximately three-eighths of the workers covered by the survey were classified as seasonal workers, that is, they were employed by the plant to work less than 11 months during the year. Plants engaged in production less than 11 months a year accounted for a fourth of all employees in the industry at the time of the survey.

Earnings

Regionally, highest earnings were recorded in the Pacific States ($2.73) where they averaged more than $1 above those in the Southeast.[3] Workers in the Southwest averaged 46 cents an hour more than those in the Southeast; this interregional differential, larger than in most industries, results principally from two factors. First, the Southwest average was increased considerably by the inclusion of workers in the fertilizer operations of a major chemical company which paid them wage rates that conformed to those paid to workers in the company's industrial chemicals plant—rates substantially higher than those paid by the fertilizer industry generally. Second, establishments limited to mixing purchased fertilizer ingredients (which have a generally lower level of wages than the plants manufacturing the ingredients) accounted for a much larger proportion of the workers in the Southeast than in the Southwest.

Nationwide, wages in complete (integrated) fertilizer plants averaged $2.19 an hour, compared with $1.90 in superphosphate plants and $1.68 in mixing plants.[4] In the Southeast, the corresponding averages were $1.69, $1.75, and $1.37. In the Great Lakes, the only other region for which data could be shown separately for all three types of establishments, workers in mixing plants averaged the same as those in superphosphate plants, 55 cents less than workers in complete plants. Mixing plants accounted for nearly three-tenths of the workers in the Southwest, between two-fifths and one-half in five regions, and for three-fifths in the Middle Atlantic region.

Establishments reported as engaged in interstate commerce employed seven-tenths of the workers or more in all regions except the Pacific where four-fifths of the workers were in plants operating only in intrastate commerce. In each of the three regions in which comparisons could be made, wages in interstate plants averaged substantially

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[1] The survey included establishments employing eight workers or more and primarily engaged in manufacturing mixed fertilizers from one or more ingredients produced in the same plant or in making fertilizers from purchased fertilizer materials as defined by Industries 2871 and 2872 in the 1957 edition of the *Standard Industrial Classification Manual* and the *1963 Supplement* prepared by the U.S. Bureau of the Budget.

A more comprehensive account of the study will be presented in a forthcoming BLS bulletin. Individual releases providing data on earnings and supplementary benefits are available for the following States: Alabama, California, Florida, Georgia, Illinois, Maryland, North Carolina, Ohio, South Carolina, Tennessee, and Virginia.

Earnings information developed by this study excludes premium pay for overtime and for work on weekends, holidays, and late shifts, and thus, is not comparable with the gross average hourly earnings published in the Bureau's monthly hours and earnings series. The forthcoming bulletin will contain an explanation of the differences between the earnings and employment estimates provided by the two series.

[2] For results of the earlier survey, see "Wages in Fertilizer Plants, April 1962," *Monthly Labor Review*, February 1963, pp. 164–167.

[3] For definition of regions, see footnote 2 of table.

[4] Each of the three types of establishments mixes fertilizer ingredients to make a finished fertilizer. Complete (integrated) plants manufacture the acids which are then used to treat phosphate rock to make superphosphate. Superphosphate plants purchase the acids used to make the superphosphate. Mixing plants purchase all ingredients.

higher than those in others. These differences reflect, in large part, a heavier concentration of low-wage mixing plants among those reported as engaged only in intrastate commerce. Whereas in each of these regions, mixing plants accounted for substantially less than one-half of the employment in plants engaged in interstate commerce, in each instance, they accounted for a large majority of the employment in intrastate plants.

Nationwide, and in nearly all regions where comparisons could be made, average earnings were higher in metropolitan than in nonmetropolitan areas, higher in plants with 100 workers or more than in smaller plants, and higher in union than in nonunion plants. Because of the interrelationship of these and other factors (for example, type of plant), it is not possible to determine the exact influence of each characteristic on pay levels. For example, the larger plants tended to be concentrated in the larger communities and usually had integrated operations; labor-management agreements were more prevalent among the large establishments than among the smaller ones.

Establishments operating under the terms of labor-management agreements accounted for slightly more than one-half of the workers covered by

NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS [1] OF PRODUCTION WORKERS IN FERTILIZER MANUFACTURING ESTABLISHMENTS BY SELECTED CHARACTERISTICS AND SELECTED REGIONS,[2] MARCH–APRIL 1966

Characteristic	United States [3]		Middle Atlantic		Border States		Southeast		Southwest		Great Lakes		Middle West		Pacific	
	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]	Number	Earnings [1]
All production workers [4]	25,484	$1.90	1,549	$2.22	2,819	$1.78	9,439	$1.57	1,683	$2.03	5,571	$2.12	2,139	$1.97	1,228	$2.73
TYPE OF ESTABLISHMENT																
Complete or integrated	8,913	2.19	-------	------	-------	------	3,434	1.69	-------	------	1,247	2.54	-------	------	-------	------
Superphosphate	5,164	1.90	-------	------	-------	------	1,922	1.75	-------	------	1,564	1.99	-------	------	-------	------
Mixing	11,407	1.68	924	1.97	1,198	1.61	4,083	1.37	-------	------	2,760	1.99	1,036	1.61	560	2.39
TYPE OF MARKET																
Interstate	19,652	1.96	1,428	2.26	2,497	1.82	6,719	1.64	1,417	2.12	4,844	2.16	1,630	2.07	-------	------
Intrastate	5,832	1.72	-------	------	-------	------	2,720	1.38	-------	------	727	1.79	509	1.64	1,018	2.7
SIZE OF COMMUNITY																
Metropolitan areas [5]	13,861	2.00	953	2.16	2,213	1.89	4,430	1.60	1,284	2.11	3,107	2.27	483	1.94	1,101	2.74
Nonmetropolitan areas	11,623	1.79	596	2.31	606	1.39	5,009	1.54	399	1.77	2,464	1.93	1,656	1.97	-------	------
SIZE OF ESTABLISHMENT																
8–49 workers	8,037	1.65	693	1.96	833	1.43	2,845	1.31	428	1.39	1,552	1.93	772	1.74	595	2.56
50–99 workers	8,178	1.79	411	2.32	996	1.88	3,666	1.50	318	1.81	1,813	2.00	581	1.93	-------	------
100 workers or more	9,269	2.23	445	2.53	990	1.97	2,928	1.90	937	2.40	2,206	2.34	786	2.22	500	2.94
LABOR-MANAGEMENT CONTRACTS																
Establishments with—																
Majority of year-round workers covered	13,644	2.10	902	2.42	1,933	1.93	4,363	1.68	871	2.32	3,270	2.28	909	2.31	752	2.75
None or minority of year-round workers covered	11,840	1.68	647	1.93	886	1.45	5,076	1.47	812	1.72	2,301	1.88	1,230	1.71	476	2.70
SELECTED OCCUPATIONS																
Baggers	1,362	1.82	63	2.08	163	1.76	530	1.51	72	1.65	338	2.16	104	1.99	65	2.23
Bag printers	176	1.90	-------	------	30	1.90	65	1.62	26	1.85	31	2.22	20	2.27	-------	------
Bag sewers, machine	896	1.72	24	1.85	103	1.66	438	1.48	61	1.63	172	2.13	41	2.05	46	2.32
Batch weighers	642	1.79	44	2.26	96	1.82	256	1.47	41	1.71	149	2.19	39	1.92	-------	------
Carpenters, maintenance	123	2.43	13	2.63	11	2.43	61	2.14	9	3.06	9	2.70	-------	------	9	3.41
Chambermen	285	2.13	15	2.83	35	2.32	149	1.66	9	3.16	36	2.74	26	2.58	-------	------
Conveyor tenders	320	1.77	-------	------	16	1.80	187	1.48	-------	------	66	2.11	23	2.19	9	2.94
Laborers, material handling	6,042	1.65	500	1.99	732	1.67	2,679	1.39	295	1.65	1,146	1.96	317	1.78	187	2.33
Mechanics, maintenance	979	2.59	60	2.68	90	2.47	318	2.33	88	2.91	271	2.65	88	2.71	36	3.39
Millers	195	2.13	9	2.43	27	2.01	65	1.62	13	2.63	43	2.54	20	1.96	-------	------
Mixers, dry mixing	738	1.89	59	2.18	63	1.79	272	1.53	47	1.83	201	2.14	52	2.13	35	2.50
Mixers, superphosphate	407	2.09	12	2.63	36	1.95	165	1.78	19	2.45	115	2.18	32	2.22	16	3.23
Truckdrivers	1,275	1.69	86	1.98	122	1.44	569	1.39	124	1.63	135	2.08	52	1.63	128	2.72
Truckers, power (forklift)	379	2.01	19	2.13	86	1.75	68	1.57	24	1.83	101	2.25	33	2.32	32	2.68
Truckers, power (other than forklift)	1,995	1.75	107	2.15	215	1.80	990	1.47	100	1.62	374	2.18	131	1.96	43	2.71
Watchmen	270	1.59	16	1.93	31	1.56	137	1.39	7	1.43	44	1.92	24	1.78	-------	------

[1] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

[2] The regions used in this study include: *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota and South Dakota; and *Pacific*—California, Nevada, Oregon, and Washington.

[3] Includes data for regions in addition to those shown separately. Alaska and Hawaii were not included in the study.

[4] Virtually all production workers were men.

[5] The term "metropolitan area" as used in this study refers to the Standard Metropolitan Statistical Areas, as defined by the U.S. Bureau of the Budget through March 1965.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

the survey. The proportions were between 40 and 50 percent in the Middle West and Southeast regions; between 50 and 60 percent in the Great Lakes, Middle Atlantic, and Southwest regions; and between 60 and 70 percent in the Border States and the Pacific region. (See table.)

Earnings below $1.25 an hour were received by 1.5 percent of the workers, almost all of whom were in the Southeast region and employed by plants reported as engaged in intrastate commerce and thus not subject to the Federal minimum wage at the time of the study.[5] Twelve percent of the workers earned $1.25 but less than $1.30 an hour. As indicated in the following tabulation, the proportion earning less than $1.30 an hour varied considerably among the regions:

	Percent of production workers earning under—		
	$1.30	*$1.40*	*$1.50*
United States	13.8	23.0	32.3
Middle Atlantic	1.1	1.2	2.8
Border States	10.1	17.5	25.2
Southeast	26.2	45.0	60.6
Southwest	16.6	25.4	36.0
Great Lakes	2.9	3.9	8.1
Middle West	12.3	18.6	25.2
Pacific	----------	.2	.3

Other than the clustering at or near the Federal minimum, the dispersion of wages in the industry was comparatively wide, with the middle half of the workers earning between $1.42 and $2.29 an hour. This relatively wide earnings dispersion is expected in an industry that extends to all sections of the country and consists of several different types of operations with varying occupational requirements.

Establishment Practices

Work schedules of 40 hours a week applied to nearly one-half of the year-round workers and to three-tenths of the seasonal workers. Virtually all of the remaining workers were scheduled to work more than 40 hours a week. Slightly more than one-fourth of the year-round workers and three-eighths of the seasonal workers were scheduled to work 50 hours or more a week at the time of the survey. Work schedules in excess of 40 hours were common in all regions except the Pacific. One-fifth of all workers were employed on late shifts, which were more prevalent in integrated and superphosphate plants than in mixing plants. Most late-shift workers received differential pay over day rates, with such payments usually ranging from 4 to 10 cents an hour for second-shift work and from 10 to 20 cents for the third shift.

Paid holidays, most commonly 6, 7, or 8 days annually, were provided to nine-tenths of the year-round workers. Among seasonal workers, a fourth received paid holidays, typically 1 or 2 days a year.

Plants accounting for slightly more than nine-tenths of the regular workers provided paid vacations to year-round workers with qualifying periods of service. Typical vacation payments for such workers were: 1 week's pay after 1 year of service, 2 weeks' after 3 years, and 3 weeks' after 15 years. Two-fifths of the workers were in plants providing at least 4 weeks of vacation pay after 25 years of service. Vacation provisions for year-round workers were less prevalent in the Southeast than in the other regions. Less than one-tenth of the seasonal workers were covered by vacation provisions.

Life, hospitalization, and surgical insurance were available to approximately nine-tenths of the year-round workers. Typically, employers paid only a part of the cost of these benefits; in the Southwest and Pacific regions, however, employers usually paid the entire cost. Accidental death and dismemberment insurance, sickness and accident insurance, and medical insurance benefits were also provided by plants employing more than one-half of the year-round workers. Seasonal workers rarely received insurance benefits.

Pension plans, providing regular payments upon retirement (in addition to Federal social security benefits) applied to seven-tenths of the year-round workers but to less than 5 percent of the seasonal workers. These plans were usually financed entirely by the employer.

In general, the supplementary wage practices discussed above were not as common among mixing plants as they were in the other two types of plants.

—Charles E. Scott, Jr.
Division of Occupational Pay

[5] Fair Labor Standards Amendments of 1966 raised the Federal minimum wage for workers in manufacturing establishments engaged in interstate commerce from $1.25 to $1.40 an hour, effective Feb. 1, 1967. See pp. 1–4, this issue.

Some Factors Affecting Housing Density and Auto Ownership

EDITOR'S NOTE.—*The following excerpt is taken from "Postwar Metropolitan Development: Housing Preferences and Auto Ownership," a paper presented by John F. Kain of Harvard University, at the American Economic Association meeting in San Francisco, Calif., December 26–29, 1966. For ease in reading, signs to denote elisions have not been used.*

METROPOLITAN AREAS in the United States have been literally transformed in the two decades since World War II. Extensive geographic growth of metropolitan regions, employment and population declines in central areas, and low density development, particularly residential, are perhaps the most notable dimensions of this transformation. While metropolitan area population grew by 26 percent between 1950 and 1960, mean central city densities declined from 7,800 to 5,800 persons per square mile.[1] During the same period, auto ownership increased from a level of 0.69 per household in 1945, to 0.92 in 1950, and 1.16 in 1960.[2] This coincidence of rapid increases in automobile ownership and transformations in metropolitan structure have caused many observers to conclude that the growth in automobile ownership is the primary cause of postwar changes in metropolitan structure.

There is one striking exception to this view of the relationship between automobile ownership and metropolitan development. Elaborate urban transportation studies have been carried out in over 200 U.S. metropolitan areas since World War II. In these studies, automobile ownership is used to explain and predict levels of tripmaking, choice of travel mode, and other aspects of urban travel. Auto ownership is always assumed to depend on net residential density, just the opposite assumption of causality from that noted above. Projections of net residential density in these studies in turn are made without consideration of automobile ownership.[3]

This paper addresses itself to the reconciliation of these conflicting views about the causal relationships between auto ownership and net residential density. Econometric models are estimated, based on the hypotheses that: (1) residential density depends on auto ownership per household, income, and preferences for residential space with unidirectional causality from auto ownership to density; (2) auto ownership per household depends on residential density, income and household transportation requirements with unidirectional causality from residential density to auto ownership; and (3) automobile ownership and residential density are jointly and simultaneously determined.

Residential Density

Empirical evaluation of these alternative hypotheses is based primarily on data for 54 cities and towns in the Boston Metropolitan region for 1950 and 1960. Several automobile ownership statistics are used. None are ideal. Similarly, difficult problems are associated with the concept of residential density. In this framework, residential density is interpreted as a measure of household or family consumption of residential space. Dwelling unit density is probably preferable on a priori grounds, since postwar residential development has been marked by both increased occupancy of single family units and larger lot size.

While these problems of measurement are serious, variables not included in the analysis are potentially an even greater source of bias. Nearly everyone agrees that the availability and quality of public transit affects the ownership of private automobiles and many would contend that the density of residential development is similarly affected by the amount and kinds of available transit services. Yet for many reasons, not the least being measurement problems, no transit service variable is included in the statistical analysis.

[1] *U.S. Census of Population: 1960, Number of Inhabitants, U.S. Summary*—Final Report PC (1)1A (U.S. Bureau of the Census, 1961), pp. 1–40.

[2] *Automobile Facts and Figures* (Detroit, Mich., Automobile Manufacturers Association, Inc., 1964), p. 18; *Statistical Abstract of the United States, 1964* (U.S. Bureau of the Census).

[3] For a survey and discussion of automobile ownership, see John F. Kain, "Urban Travel Behavior," in Leo F. Schnore and Henry Fagin, eds., *Urban Research and Policy Planning: The First Urban Affairs Annual Review* (Beverly Hills, Calif., Sage Publications, Inc., 1967).

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Additionally, changes in metropolitan employment distributions have affected both the competitiveness of public transit and the costs of lower density residential services. In Boston, as elsewhere, much of the observed increases in automobile ownership and declines in lower residential densities must be due to employment dispersal.[4] Public transit is obviously much more competitive in dense central areas. Moreover, high residential land costs in central areas or the expense of commuting to cheaper peripheral land inhibit many centrally employed workers from living at lower densities. If their jobs shift to suburban locations near cheap land or if they purchase a private automobile for commuting to work, the costs of residing at lower density will decline.

While this paper does not provide clearcut or conclusive answers about the interrelationship between residential density and automobile ownership, it does provide much new and consistent information. Regardless of which causal hypothesis is accepted, it appears that income has been the most important factor underlying both higher postwar levels of automobile ownership and declines in residential density. This conclusion derives from consideration of both the estimated regression coefficients and the postwar changes in income and other explanatory variables.

Real median family income in the Boston SMSA increased by an estimated 56 percent between 1950 and 1960. It is estimated that an increase of this magnitude in real median family income would increase auto ownership per household by between 28 and 34 percent. By comparison, the decade's 39-percent increase in the proportion of Boston households living in single family units would account for only an 8- to 10-percent increase in auto ownership per household. Moreover, residential density is at least partially dependent upon income. Thus, part of this 8- to 10-percent increase in auto ownership might also be attributable to the growth in income during the decade.

[4] Rough calculations indicate that employment within 5 miles of downtown Boston declined from 65 to 57 percent of all metropolitan area employment between 1950 and 1960. More significantly, the number employed in that area fell by 29,000 or by 6 percent.

Family Income

It also appears that rapid postwar increases in family income have strongly affected residential density, either directly as an item of consumption, or indirectly through their effect on automobile ownership. Using the most satisfactory of the four least squares residential density equations, income elasticity is approximately minus one, indicating that the 56-percent increase in real median family income between 1950 and 1960 would cause about a 56-percent decrease in net dwelling unit density. In the same equation, the automobile ownership elasticity is also approximately minus one, indicating that the estimated 29-percent increase in auto ownership per household during the decade should have caused about a 29-percent decline in net dwelling unit density. Auto ownership would appear to be strongly dependent on income, and thus, part of the 29-percent decline in net dwelling unit density due to increased auto ownership must be attributed to rising income. Family size and labor force participation are much less powerful as explanations of postwar changes in residential density during this period, since changes in them have been much smaller than increases in income.

While the models used in this study appear to provide surprisingly consistent results for a fairly wide range of samples, their partial character is painfully obvious. The omission of transit service variables and inadequate specification of employment location are only the most obvious examples. Specification and measurement of these concepts will not be easy tasks, but they would appear to be essential if the processes of metropolitan development are to be fully understood.

Beyond the Guidelines: Wage-Price Policy for 1967

EDITOR'S NOTE.—*The following excerpt is taken from chapter 3, "Maintaining Price Stability and Reducing Unemployment," of the annual report of the Council of Economic Advisers.*[1]

TWO IMPORTANT DEVELOPMENTS have created the major problems for wage-price policy today. The first is that consumer prices have risen by 3.3 percent in the past 12 months, which makes organized workers—even in unions which were previously disposed to cooperate with the Government's policy—unwilling to contemplate settlements at or close to the guideposts. And it gives unions which were never disposed to cooperate an additional reason for not doing so. The second development is that corporate profits have increased considerably more than aggregate labor income, especially when measured from the slack years of the late 1950's or the recession year of 1961. This provides a second reason for labor's resistance to the guidepost.

There can be no question that some part of the rise in consumer prices is due to past failure to observe the guideposts, both by organized labor and by business. And some part of the faster rise of corporate profits has been due to the failure of some businesses to make their price decisions conform to the guidepost principles (particularly by not reducing some prices when costs fell).

But it is clear that the primary source of the rise in consumer prices lies in areas to which the guideposts have no applicability: in farm products, where prices have risen considerably, despite rapid productivity gains; and in services, where wages and professional incomes of unorganized workers have also risen rapidly.

So far as the rise in corporate profits is concerned, much of it would have occurred had the guideposts been precisely followed. . . .

Nevertheless, the rise in consumer prices and the increasing share of profits until the first quarter of 1966 are facts that cannot be disputed nor explained out of existence. And they cannot fail to influence the behavior of wages in 1967. Through the effect of wages on costs, they will also influence prices.

The main issues for wage-price policy in 1967 are these:

(*a*) Should the guidepost for wages be adjusted to recognize in some way the recent increase in living costs?

(*b*) Should further recognition be given to special factors—other than those previously recognized—which appropriately justify exceptions to the general guidepost principles?

(*c*) To what extent should profit margins absorb cost increases?

Higher Living Costs

The Council recognizes that the recent rise in living costs makes it unlikely that most collective bargaining settlements in 1967 will fully conform to the trend increase of productivity. But it sees no useful purpose to be served by suggesting some higher standard for wage increases, even on a temporary basis.

The only valid and noninflationary standard for wage advances is the productivity principle. If price stability is eventually to be restored and maintained in a high-employment U.S. economy, wage settlements must once again conform to that standard.

While it can be expected that many wage settlements in 1967 will exceed the trend increase of productivity, it is obvious that if, on the average, they should exceed it by the amount of the recent increase in living costs, price stability could never be restored. If the average wage increase in 1967 were to include a full allowance for productivity plus an additional margin to "compensate" for past increases in living costs, unit labor costs would rise at a rate which would require living costs to continue their rapid rise.

In this connection, it must be recognized that some part of the advance of consumer prices represents a transfer of income to public uses. Most State and local governments are compelled repeatedly to raise indirect tax rates to finance the expansion of essential services. These indirect taxes enter into prices, accounting for 0.2 percentage point of rise in the consumer price index in 1966. And in 1967, there will be no offset to the rise in these indirect taxes (as in 1965 and 1966) from reduced Federal excises. If every group attempted to offset the burden of these higher indirect taxes by a compensating rise in money incomes, no transfer of real resources to public purposes could be achieved.

It is not expected that market forces in 1967 will again require that average wages in the largely unorganized sectors—agriculture, trade, and services—should rise faster than in the organized segments—manufacturing, mining, construction, and transportation—in order to promote an efficient allocation and use of labor. But the higher minimum wage effective in 1967 will have its principal impact on wages in the unorganized sectors, and in the largely unorganized low-wage segments of manufacturing. Thus there will be some continued pressure on costs and prices originating in wage increases outside of the organized sectors.

In 1967, the national interest continues to require restraint in wage settlements; indeed, it is more essential than ever that restraint be practiced in order to turn the trend of prices back toward stability. If restraint cannot mean an average wage advance only equal to the rise in productivity, it surely must mean wage advances which are substantially less than the productivity trend plus the recent rise in consumer prices.

Although the Council recognizes that some allowance will frequently be made for higher living costs in 1967 settlements, it continues to believe that arrangements which automatically tie wage rates to changes in consumer price indexes will contribute to inflation. One union may be able to protect its members in this way

[1] *Economic Report of the President, Transmitted to the Congress January 1967, Together With the Annual Report of the Council of Economic Advisers* (Washington, Government Printing Office, 1967).

against any deterioration in its real wage or any real impact from increased indirect taxes. But it does so only by imposing more of the burden on others. And if all unions—and other groups in society—were to succeed in tying compensation to consumer prices, the arrangement would become a vast engine of inflation, which, once it began to roll, would continue to gain speed.

Guidepost Exceptions

The most frequent criticism of the present wage guidepost—after the criticism that it fails to allow for the rise in consumer prices—is that it fails to provide sufficient exceptions for the many special and individual circumstances of which account must be taken in wage negotiations. This criticism requires consideration.

A guidepost exception has always been made for low wages. In a year in which the minimum wage will advance 11 percent, from $1.25 to $1.40 an hour, with an inevitable impact on wages previously near the new minimum, this exception is obviously significant. The fact, however, that few strong unions exist among low-wage workers gives the exception only limited relevance for collective bargaining.

It surely does not justify large wage increases for high-wage unions. Indeed, the productivity arithmetic suggests that, if an exception for low-wage workers is to be meaningful in permitting low-wage workers to receive increases in *real* wages, high-wage workers who have profited in the past from exceptionally strong bargaining power must respect the counterpart exception that their wage increases should be less than the average.

Second, the guidepost principle has always contained a clear exception for wage changes that serve an economic function by assisting in the reallocation of labor toward shortage occupations and industries. Thus, for example, no complaint has ever been made in the name of the guideposts with respect to the large wage increases recently received by nurses.

Indeed, in a high-employment economy, the importance of differential wage changes as an instrument of labor reallocation is greatly increased, and this exception is more important today than in earlier years. However, the Council suggests that, as a general principle, an exception to the guideposts for workers in a shortage occupation should be claimed only where the union involved stands ready to lift every artificial barrier to entry into the occupation, and to cooperate fully in public and private efforts to train whatever numbers of workers may desire to enter the occupation. Moreover, the remaining labor shortages this year will be concentrated in unorganized professional and technical occupations.

Other exceptions have frequently been proposed for incorporation in a national wage policy.

One such proposal is to allow for the narrowing of differentials between wage rates paid in different industries or by different employers for similar work—the so-called issue of "comparable wages." To the extent that such differentials may interfere with a rational allocation of labor, their correction is already encouraged by the exception just discussed.

The public interest obviously requires that wage settlements pay appropriate attention to factors of comparability. But it cannot accept inflationary settlements every time this justification is alleged.

At least within a single labor market area, it is surely desirable that workers in occupations requiring similar training, skill, education, and responsibility should be paid the same wage. This is less obvious as between labor markets. Even within labor markets, some wage differentials may reflect the fact that one employer finds it worthwhile to pay above-average rates in order to insure low turnover, good morale, and greater selectivity in hiring, while another prefers to pay lower rates and forego these advantages.

It is probably true, on the whole, that the dispersion of wages for similar work by similar workers is larger than it should be from the point of view of either efficiency or equity. But the wage comparisons made in collective bargaining disputes often have little or no relevance either to resource allocation or to equity. Very often the wage comparisons in collective bargaining are only part of a game of follow-the-leader which, at best, is irrelevant to resource allocation and, at worst, speeds up a wage-price spiral.

Many recent instances in which outsized wage agreements have emerged from collective bargaining—based on claims that such increases were necessary in order to achieve wage comparability—have created more problems of inequity and inefficiency than they have resolved. Meaningful wage comparisons should be made not only with wages that are higher but also with those that are lower. Otherwise, wage increases to achieve "comparability" may actually reduce it. Unions can always find *some* group of workers more highly paid than they—whether or not all other conditions are similar. If all corrections of such "inequities" are upward, labor cost inflation is inevitable.

One recent important collective bargaining dispute produced a highly inflationary uniform percentage increase for the entire work force involved. The justification was that an increase of this magnitude was necessary to correct what may have been genuine disparity between the wages of a small group of specialized workers and similar workers in other employments. The mediation committee which recommended the settlement recognized that, for the great majority of the work force involved, wage rates were already as high as, or higher than, those for comparable workers. But they could not recommend destroying the customary relationship between the wages of those workers for whom the disparity was found to exist and the wages of all other members of the work force. This is a clear recipe for inflation.

Another exception frequently urged is that, in industries with rapid productivity gains, wages should rise faster than the average. If such an exception were made, it would necessarily impart an inflationary bias to the system—for no one argues that wages will or should rise less rapidly or not at all in industries with little or no productivity gain.

It is clearly in the public interest for unit labor costs and prices to fall in industries with relatively high pro-

ductivity gains. In the long run, falling unit labor costs do result in falling prices (except where there are offsetting increases in other costs). But the long run may be too long for labor's and the public's patience. And sometimes the very factors that produce falling costs may work against price reduction. For example, the industries in which labor costs ars falling are often those in which demand, and thus production, is expanding most rapidly—a situation which weakens rather than strengthens the competitive forces driving down prices.

If there is a long lag between a reduction in labor costs and a reduction in prices, it is difficult to make a convincing case that high wage settlements in industries with high productivity growth are not in the public interest. . . .

Another of the reasons given for an exception to the wage guidepost is ability to pay. In practice, this refers to the profits of the bargaining employers. Ability-to-pay considerations are, of course, often related to the industry's own productivity trend. Industries with rapid productivity gains, falling labor costs, and stable prices are industries in which profits have risen.

But ability-to-pay considerations arise independently in another context. In any period of rapid expansion toward full utilization, profits inevitably rise faster than total employee income—just as profits fall more rapidly when utilization rates decline. The past 5 years have been such a period of rising profits. It is not surprising that trade unions seek to share in the profits generated by prosperity.

The record shows, however, that attempts on the part of unions to redistribute income from profits to wages through excessive wage increases in high-profit industries results primarily in higher prices in those industries. When this happens, the effect is to redistribute real income from the rest of the community—who are mostly other wage earners—to the workers in question, with very litle redistribution from profits to wages.

To avoid a wage-price spiral it is therefore essential that firms with discretion over prices—and particularly those with unusually high profits—pursue price policies which will not invite excessive wage demands.

Price Policy for 1967

The foregoing discussion has indicated the essential character of the problems which businesses with pricing discretion will face in 1967:

1. Wage contracts newly negotiated in 1967 will tend to raise unit labor costs of many firms and industries.

2. Nevertheless, many important industries will continue to operate in 1967 under labor contracts negotiated in 1965 or 1966, which often will be consistent with declining unit labor costs.

3. Although the cost of purchased industrial products may frequently be higher in 1967 than in 1966, the purchase cost of some raw materials will be lower.

4. Many firms in 1967 will be using new and modern capital equipment installed during the past year, and will be under less pressure to operate marginal units. Often this will involve substantially lower costs.

In short, the cost picture for price setters in 1967 will continue to be a mixed one.

Although average profit margins of manufacturers declined in the second half of 1966, they were higher for the entire year—at least as a percentage of equity—than in any prior year since the highly inflationary year of 1950.

In the past, profit rates like those recorded in 1966 endured only for brief periods. Profits rose rapidly in cyclical expansions. But as the economy reached and quickly passed a cyclical peak, reductions in capacity utilization retarded the growth of productivity and intensified competitive pressures, with a resulting erosion of profit margins. If public and private policies now succeed in maintaining a steadily expanding economy, it follows that the profit margins which were feasible only in the boom stage of a boom-bust economy—and therefore may have been appropriate in that stage—are inappropriate in a steadily prosperous economy.

Once firms can become accustomed to operating in a more stable environment, the profit margins which they now seek to achieve in periods of high utilization can be reduced, as no longer necessary to make up for the low and frequently inadequate profits of periods of slack and recession. In fact, profit margins not only should be lower than in the boom phase of a cyclical economy, but should be reduced on the average because operations in such an environment carry lesser risk.

It is true that an adjustment to lower profit margins may be feasible and appropriate only if steady economic advance can be maintained. But it is equally true that such an adjustment of margins may itself be required if a steadily high employment economy is to be maintained.

In an economy which grows steadily but does not outrun the growth of capacity, there will be vigorous competition, and, ultimately, profit margins in most industries should seek an appropriate level. But competitive pressures work slowly. In industries where a small number of leading firms possess strong market power, they work very slowly indeed. Firms in those industries in which market power, combined with strong demand has pushed profit margins to record levels, have a special responsibility in price-making at this critical time.

If, in 1967, firms with discretion as to their prices should follow pricing policies which even maintain present margins, the opportunity for a significantly improved price record will be compromised. It would speed up the rise in living costs, and it would again pose inviting targets for inflationary wage demands by unions.

To assume steady movement toward price stability in 1967, the public interest requires that producers absorb cost increases to the maximum extent feasible, and take advantage of every opportunity to lower prices.

In so doing, they will make an important contribution to strengthening America's international competitive position and to a climate that will permit the economy to maintain the forward momentum which will preserve and enlarge the gains of the past 6 years of rewarding prosperity.

Foreign Labor Briefs*

Federal Republic of Germany

Unemployment. A slowdown in economic activity caused the number of unemployed workers to rise to 327,300 by mid-December 1966, and to exceed the number of job vacancies for the first time since early 1960. Though still relatively low, the unemployment rate had risen from 1 percent at the end of November to 1.5 percent at mid-December. Foreign workers were apparently not being singled out for dismissal; there were still 1.3 million of them in Germany in mid-December, and their unemployment rate was still 1 percent. Some of those who had been dismissed have, however, obviously returned home and are not shown on the German unemployment rolls.

Unionization of Soldiers. The controversial drive by the Public Service and Transport Workers Union (OeTV) to recruit members among the ranks of the Federal Republic of Germany's Armed Forces was discussed at a conference of union officers, political leaders, Government officials, and some 50 representatives of the soldiers held in November 1966 at the initiative of Heinz Kluncker, president of the union. Spokesmen for the OeTV, whose organizing drive reportedly had netted 3,000 members by September 1966, stressed that the union was interested only in the social welfare of the professional soldiers; that it would not interfere in purely military matters; and that it could never call a strike of soldiers as this was expressly forbidden by the union's bylaws. Despite these assurances, some army commanders were apparently apprehensive about the union's objectives. Some commissioned and noncommissioned officers had been refused leave to attend the conference despite the decree issued by the Minister of Defense in August 1966, which authorized members of the Armed Forces to engage in trade union activities.

The OeTV began to reeruit members among army personnel in early 1965. Its drive was stymied by opposition from the Ministry of Defense and the *Bundeswehrverband*, a military association which claimed the sole right to represent the soldiers. The union failed in its efforts to obtain a favorable ruling on the matter from the Constitutional Court. In August 1966, the Minister of Defense reversed his long-standing opposition to the OeTV's drive and issued the enabling decree.

Honduras—*Collective Agreement*

The Tela Railroad Company (the operating enterprise of the United Fruit Company in Honduras) and SITRATERCO (the union of its employees) signed a new 5-year collective agreement which became effective December 1, 1966. The contract meets the company's desire for a longer agreement; previous agreements had been of only 2 or 3 years' duration.

Virtually all employees covered by the agreement received an immediate wage increase of at least 4 percent. A few employees already earning monthly salaries of more than 250 lempiras (US$125) in livestock operations or more than 500 lempiras (US$250) in other activities of agriculture, processing and transport were not included in the wage increase provision. New hourly minimum wages were established at 0.60 lempiras (US$0.30) for livestock work and 0.70 lempiras (US$0.35) for all other work. The change in the minimum increased the wages paid in the lowest brackets by an amount ranging from 5 to 8 percent. All workers will receive an additional 4-percent wage increase on December 1, 1969. For the first time in recent years, the agreement provided an annual bonus equivalent to 2 weeks of wages for all permanent workers, to be paid on December 15 of each year beginning in 1966.

Italy—*Collective Bargaining Agreements*

The collective bargaining impasse which was first confronted in September 1965 ended in the closing months of 1966, when eight collective contracts covering a total of 1.4 million industrial workers and one covering 1.5 million agricultural workers were signed. Prospects were brightened for the renewal of 60 other expired contracts covering 3.6 million workers.

A result of the firm resistance of employers and the Government to what they termed the "exces-

*Prepared in the Office of Foreign Labor and Trade, Bureau of Labor Statistics, on the basis of material available in early January.

sive, inflationary demands" of labor, the impasse had had the effect of a wage and salary freeze. The impasse also helped to limit the rise in the cost of living to 1.6 percent during the year ending August 1, 1966. In the years ending August 1, 1964, and 1965, living costs had risen 7.4 and 4 percent, respectively. The newly signed contracts provide for average increases in wages and fringe benefits of 13 to 15 percent over the next 2 to 3½ years.

Netherlands—*Wage Policy*

Directives for wage policy in 1967 were issued by a Cabinet committee and the Board of the Labor Foundation (the official labor-management body) on December 9, 1966. According to these directives, wage contracts for 1967 must conform to the following terms: Wage increases may not exceed 4 percent on January 1 and 1½ percent on July 1, and there must be bargaining for benefits which would increase wage costs beyond these limits; the workweek may not be reduced; and clauses may not provide wage increases in case of excessive rises in the cost of living. (The Government, in turn, promised a vigorous attempt to hold prices in line.)

The weekly minimum wage was raised from 120 guilders (US$33) to 126 guilders (US$34.80) on January 1, 1967, to be raised to 130 guilders (US $35.91) on July 1. Social security benefits were increased 5 percent on January 1, 1967, but not on a retroactive basis as had been the custom.

Both management and union representatives stated that they were "not enthusiastic" about the directives. The president of the Netherland Federation of Trade Unions (NVV) accused the Government of siding with the employers, while the representative of the employers stated that he would have preferred a mutual agreement reached within the Labor Foundation.

Soviet Union—*Wage Gap*

The wide gap between wages in agriculture and industry has been reduced considerably since the adoption in March 1965 of a comprehensive program to stimulate agricultural production. However, according to figures recently published in a magazine for Communist Party workers in the Armed Forces, average monthly earnings of collective farmers in 1965 were still about half the average monthly earnings of industrial workers. The average monthly earnings of collective farmers were 51.3 rubles (US$57) compared with the 103 rubles (US$114) of industrial workers, and the 73.6 rubles (US$82) of State farm workers.

United Kingdom

Brain Drain. In 1964, some 400 doctors left England; in 1965, the number rose to 550; and in 1966, the exodus, accelerated in part by the wage freeze, was expected to range from 600 to 800, about half of the total output of Britain's medical schools. Government concern over the rising emigration results from its heavy financial stake in the education of doctors, as well as its commitment to the National Health Service, whose effectiveness would be severely impaired by the continued emigration.

In a recent speech before hospital doctors, the Minister of Health stated that it costs at least £7,500 (about US$20,000) in public funds to train each doctor. The Minister added that working conditions of doctors in British hospitals would be improved by the Government, but he warned that the exodus of medical personnel was placing additional burdens on the remaining staffs.

Retraining. A Government grant of £2 million (US$5.6 million) to aid private industrial retraining was announced by the Minister of Labor on November 30, 1966. The money is to help meet the cost of installing new machinery and auxiliary equipment in the training shops or training centers of individual employers and is to be used for retraining adults "off the job" for semiskilled occupations.

The Minister also announced plans to expand the public training centers which the Government operates to train or retrain people who either never learned a skill or must change their skill. According to these plans, the number of Government centers will be increased to 38 from 32, adding 1,600 places for trainees to the existing 6,400 places during 1967. Moreover, the Government is exploring the possibilities of making room for more adults at the centers by providing courses for adults in the Defense Ministry's training establishments and by using technical colleges in the vicinity of Government training centers for first-year apprentice classes.

Significant Decisions in Labor Cases*

Labor Relations

Craft Severance. The National Labor Relations Board discarded[1] the restrictive tests for craft unit determination established in *American Potash*,[2] and reverted to the policy of full discretion and broad inquiry into all the factors relevant to a requested severance.

The International Brotherhood of Electrical Workers (IBEW), desiring to represent the instrument mechanics at a plant engaged in the production of uranium for the Atomic Energy Commission, petitioned for a craft severance election. The Board found that the instrument mechanics constituted an identifiable group of skilled employees, but that the IBEW did not qualify as a traditional representative of the class and dismissed the petition. However, that the union's failure to satisfy the traditional representative test under *American Potash* was not in itself a decisive ground for dismissal of the case. The validity of this test was challenged by the employer, and the Board decided to review its policy on craft severance. It did so particularly in view of an appellate holding[3] that the Board was abrogating its statutory duty by adopting such rigid tests in craft severance cases, and in consideration of industrial progress and the resultant changes.

Originally, under the rules laid down in *American Co.*[4], the Board refused to grant craft severance in the face of a "bargaining history on a broader basis." To soften the impact of this decision, section 9(b)(2) was included in the Taft-Hartley Act, which provided that "the Board shall not . . . decide that any craft unit is inappropriate on the ground that a different unit has been established by a prior Board determination, unless a majority of the employees in the proposed craft unit vote against separate representation." Subsequently, in deciding *National Tube*[5], the Board took the position that section 9(b)(2) merely prevented it from denying separate craft representation solely on the basis of a previous Board decision, but that the Board was free to consider such factors as bargaining history, the integration of craft functions with the overall production process, and other circumstances. However, in *American Potash*, the Board reversed the *National Tube* decision by stating that a craft group will be granted severance where there is a discernable craft group and the union seeking representation traditionally represents that craft. This position was predicated mainly on the view that 9(b)(2) "foreclose[d] discretion and compel[led] the Board to grant severance" where these tests were met.

In discarding its previous statutory interpretation on which the *American Potash* ruling was founded and, as well as the tests set up by it, the Board stated that those tests "[did] not consider the interests of the other employees and thus [did] not permit a weighing of the craft group against the competing interests favoring continuance of the established relationship."

The Board held that henceforth it would broaden its inquiry and evaluate all relevant considerations, including: (1) whether or not the proposed unit consists of a distinct group of skilled craftsmen; (2) whether or not craft severance would disrupt the history of collective bargaining and thus affect the stability of labor relations; (3) the extent of the unit's separate identity while included within the larger unit; (4) the history of collective bargaining in the industry; (5) the degree of integration of the employer's production processes; and (6) the experience of the union in representing similar units.

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*Prepared in the U.S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[1] *Mallinckrodt Chemical Works, Uranium Division* and *International Brotherhood of Electrical Workers, Local 1,* 162 NLRB 48 (Dec. 30, 1966).

[2] *American Potash & Chemical Corp.,* 107 NLRB 1418; see also *Monthly Labor Review,* May 1954, p. 560.

[3] *NLRB* v. *Pittsburgh Plate Glass Co.,* 270 F. 2d 167 (C.A. 4); cert. den. 361 U.S. 943.

[4] *American Can Co.,* 13 NLRB 1252.

[5] *National Tube Co.,* 76 NLRB 1199.

Indicating that this list was not exclusive, the Board stated, "Our determination will be made only after a weighing of all relevant factors on a case-by-case basis, and we will apply the same principles and standards to all industries."

The dissenting Member Fanning agreed that a restatement of policy was required, but held that Congress, in passing section 9(b)(2), had intended to strengthen and protect the right of craft employees to organize separately, their inclusion in a larger unit notwithstanding. He stated that those who would deny separate representation to craft employees should have the burden of demonstrating that the smaller unit had been submerged in the larger, and that this burden is not met merely by showing a bargaining history on a broader basis, no matter how long it has endured. Mr. Fanning also stressed that this approach is applicable where craft severance is involved or where the issue of separateness arises during an initial organizing campaign.

He would allow severance if the employee unit consists of true craftsmen and their interests are subordinated to those of an unskilled majority, regardless of whether the union is a traditional representative or whether the employees had previously attempted to gain separate representation.

Duty to Bargain. The Supreme Court of the United States recently handed down two decisions dealing with an employer's duty to bargain.

In the first decision,[6] the Court held that the NLRB had jurisdiction of a dispute over interpretation of a contract provision for a premium pay plan, since the Board's intervention could have no other objective than to facilitate an agreement between the parties. The Court, further, upheld the Board's decision that the employer had no contractual right to institute the premium plan unilaterally.

The collective bargaining agreement between the employer and the union contained a provision whereby the employer reserved the right to "pay a premium rate over and above the contractual classified wage rate to reward any particular employee for some special fitness, skill, aptitude or the like. . . ." The agreement did not provide for arbitration. Subsequently, the employer posted a notice that employees of certain crews would be paid $2.50 per hour if the crews met specified production standards. (The contractual wage scale stipulated hourly wages for these crews ranging from $2.15 to $2.29.) The union immediately met with the employer, but during this and subsequent conferences, the employer refused to rescind the wage plan, although it was willing to discuss its terms.

The NLRB had found that the provision of the collective agreement in question did not grant the employer power to unilaterally change the wage system as he had because the provision allowed merit increases for "particular employee[s]," while under the employer's plan merit increases would be granted to entire crews. This, the Board found, amounted to a unilateral change of the wage system. The employer was charged with a failure to bargain. A court of appeals refused to enforce the Board's order, saying that the Board had no jurisdiction since the existence of the alleged unfair labor practice did not turn on statutory provisions, upon a good faith dispute as to the meaning of a contractual provision.

In reversing the court of appeals, the Supreme Court found that the Board's action did not amount to regulation of contract terms, a function the Congress clearly had refused to entrust to the NLRB. The Board had not invaded the courts' jurisdiction under section 301 of the Labor Management Relations Act to construe labor agreements and resolve disputes, the Court said, but merely interpreted the agreement only so far as was necessary to decide this unfair labor practice case. The Court also pointed out that if the Board were not able to consider a collective bargaining agreement in a case of this type, where the parties have not provided for arbitration, the union would have to institute a court action to have the contract interpreted before obtaining vindication of their statutory rights. "This would add years to the already lengthy period required to gain relief from the Board," the Court added.

In the other case,[7] the Supreme Court held that the Board had power to order an employer to furnish the union with information needed for determining whether the collective bargaining agreement had been violated, even though the dispute had not been submitted to compulsory arbitration as provided by the contract.

[6] *NLRB* v. *C. & C. Plywood Corp.* (U.S. Sup. Ct., Jan. 9, 1967).
[7] *NLRB* v. *Acme Industrial Co.* (U.S. Sup. Ct., Jan. 9, 1967).

The collective agreement between the parties contained a clause declaring that it was contrary to company policy to subcontract out work where this would result in layoffs of employees. Another clause provided that employees subject to layoff or downgrading owing to removal of plant equipment to another location were entitled to a transfer to such location. Differences of opinion over the contract were subject to a grievance and arbitration procedure.

A number of employees were laid off and the union became alarmed when the employer began to remove certain plant equipment. To the union's inquiry as to why and to what place the equipment was being removed, the employer replied simply that there had been no violation of the contract and the company was not obliged to answer such questions. Thereafter the union filed 11 grievances, as well as a refusal to bargain charge with the NLRB.

The Board found that the information requested was "necessary in order to enable the union to evaluate intelligently the grievances filed," and that the employer had failed to bargain in good faith. A court of appeals refused to enforce the Board's order, ruling that the contractual provision for binding arbitration deprived the Board of jurisdiction. The court reasoned that the Board's action was contrary to the national labor policy favoring arbitration.

The Supreme Court noted that there is no question but that an employer is obligated to provide information needed by the bargaining representative for the proper performance of its duties, and this obligation applies to labor-management relations during the entire term of an agreement. According to the Court, the Board's action in determining that the desired information was relevant decided nothing about the merits of the union's contractual claims and did not amount to a construction of the labor agreement.

In the Court's opinion, the "only real issue" in the case was whether the Board should have waited for an arbitrator's determination of the relevancy of the information requested by the union. The Court ruled that the LMRA provides the Board with ample authority to take action in disputes regardless of any other means of adjustment. Far from hindering the arbitration process, the Court reasoned, the Board's action would relieve the burden on the arbitrator by enabling the parties to consider all aspects of a grievance on the merits in the lower steps of the grievance procedure. This, in turn, could lead to the resolution of many grievances, thereby freeing the arbitrator to consider only those disputes which are impossible of resolution by agreement of the parties.

Union Affairs

Unauthorized Practice of Law. A State court determined [8] that a union was engaging in unauthorized practice of law when it retained an attorney to represent its members in personal injury suits before the State industrial commission.

For years the union had employed a licensed attorney on a salary basis to represent members' personal injury claims under the Workmen's Compensation Act. Members were free to seek other counsel, the attorney's assistance merely being a service made available free of charge by the union. The entire sum of any settlement or award was retained by the claimant.

The court examined the question of whether, under its prior decisions, the union was engaging in unauthorized practice of law and if so, whether this activity was protected by the 1st and 14th Amendments to the United States Constitution.

An argument was presented that since the union was not a legal entity, the members were merely pooling their resources in order to hire legal counsel and, therefore, there was no question of an intermediary between the attorney and his client.

In rejecting this line of reasoning the court said it was not concerned with forms but with activities of the association. Furthermore, it said, "the public welfare demands that legal services should not be commercialized, and that no corporation, association, or partnership of laymen can contract with its members to supply them with legal services." Lawyer-client relationship, the court pointed out, requires complete dedication of the attorney to his client's interests, and this relationship would be jeopardized by the inclusion of another party. The court also found support for its position in the Illinois State Bar Association's Canons of Ethics which, it found, condemned such arrangements.

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[8] *Illinois State Bar Association* v. *United Mine Workers of America* (Ill. Sup. Ct., May 21, 1966); 219 N.E. 2d 503.

The union argued that the practice was proper under the "concerted activities" provision (section 7) of LMRA. The court rejected this contention, saying that this general statutory language cannot restrict the States from regulating the practice of law.

In deciding the question of whether denying the union the right to hire an attorney to represent its members violates the First and Fourteenth Amendments, the court examined the U.S. Supreme Court decisions in the *Virginia Railroad Trainmen*[9] and *Button* cases.[10] Since the State court's objection was to the union's practice of keeping an attorney on its payroll to represent its members, but not to the referral of members to particular attorneys, the court reasoned that its ruling here was consistent with *Virginia Railroad Trainmen.* Nor did the court conclude that the *Button* decision involving a civil rights group, compelled a different result: "[T]he litigation therein engaged," said the court, "was regarded as a form of constitutionally protected political expression not to be equated with the bodily injury litigation, with which this case is concerned."

Past judicial decisions, the court held, had recognized individual States' right to regulate the practice of law to the extent that the regulations do not impinge on the First and Fourteenth Amendment guarantees relating to freedom of speech and association. However, even if there was an infringement in this case, the court believed the State's interest in controlling standards of professional conduct was sufficient to sustain the decision.

In conclusion, the court pointed out that if the union were allowed to continue this arrangement, it might expand the practice to domestic relations, contracts, criminal situations, and other areas requiring legal service, thus impairing "the integrity and personal nature of the attorney-client relationship," with results detrimental to public interest.

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[9] *Brotherhood of Railroad Trainmen* v. *Virginia,* 84 S. Ct. 1113 (1964) ; see also *Monthly Labor Review,* June 1964, p. 689. The decision upheld the right of the union to advise injured members to obtain legal advice, and to recommend specific lawyers.

[10] *NAACP* v. *Button,* 83 S. Ct. 328 (1963). The Supreme Court held that a system devised by the NAACP to furnish and recommend attorneys, compensated on per diem and per case basis, to member litigants in civil rights cases was institutionally protected by the First and Fourteenth Amendments.

If . . . we may speak of intelligent foresight and rational ordering and direction of appropriate means to be given social ends, it must be clear that such an activity must operate with the physical resources—natural and cultural—with the laws and institutions, and with the capacities, the attitudes, and interests of men. Of these only the physical resources are merely means; all the rest are ends as well as means. Some of the major difficulties of contemporary industrial society seem to arise in large measure out of the fact that our economic and technological changes have far outdistanced the relatively slow readaptation of our institutions, ideas, and sentiments.

—Louis Wirth, *Community Life and Social Policy.*

Chronology of Recent Labor Events

January 5, 1967

RECEIVING 3,091 of 3,517 votes, the Teamsters won an election to represent 7,000 office, clerical, and related employees of Pan American World Airways, Inc., then represented by the Railway Clerks. The clerks had asked their supporters to abstain, but there were 48 more votes than the required majority of eligible voters.

ENDING a 164-day strike, members of Plumbers Local 2 returned to work in New York City under a "memorandum of understanding" between national officials of the union and New York contractors. The tentative agreement, which covers 4,000 plumbers, calls for wage increases of nearly 18 percent over 3 years.

January 8

ASSOCIATED PRESS and the Wire Service Guild agreed on a 2-year contract covering 1,350 employees. The contract, retroactive to January 1, gives wage increases of $4 to $7 a week the first year and $3.25 to $6 the second; the workweek is reduced from 40 hours to 37½ for all employees other than newsmen and photographers. (See p. 61, this issue.)

J. I. CASE CO., and the United Auto Workers agreed on a 3-year contract covering 7,000 members in seven plants in Illinois, Wisconsin, Iowa, Indiana, and California. The contract is retroactive to January 1 and provides for wage increases from 9 to 22 cents an hour each year. It also includes a cost-of-living escalator and increased health, pension, and vacation benefits. (See p. 61, this issue.)

January 9

THE Chicago Board of Education and the American Federation of Teachers agreed on a contract covering 23,000 public school teachers, and a settlement ending a strike at eight junior colleges provided 700 teachers with wage increases of $20 a month retroactive to January 1 and an additional $30 on September 1. The contract also liberalized insurance and leave provisions and reduced class loads for most teachers. In Woodbridge, N.J., an 11-day strike ended on January 30 when the Woodbridge Township Federation of Teachers and the Board of Education agreed on a 1-year contract covering 900 public school teachers. The agreement provides a salary range from $5,850 for beginning teachers to $9,850 for teachers with 12 years' experience and a bachelor's degree.

January 13

FOUR railroad unions (Maintenance and Way Employees, Transportation-Communication Employees, Railroad Signalmen, and Hotel and Restaurant Employees) and the Nation's Class I Railroads agreed on 18-month contracts covering 135,000 workers. The contracts provide a 5-percent wage increase retroactive to January 1, an increase of 2.5 percent a year later, and improved vacation benefits.

January 16

OIL, CHEMICAL AND ATOMIC WORKERS agreed on a 2-year contract with Sinclair and Mobil Oil Cos. The union, which represents about 60,000 workers at 100 refineries, also settled with Continental, Marathon, Gulf, and Texaco Oil Cos. this month, and a 9-day strike at Texaco's Port Arthur Plant ended on January 18. All contracts call for a wage increase of 14 cents an hour retroactive to January 1, 15 cents next January, and improved fringe benefits. The contracts also contain a job security clause which enables the union to strike over a layoff. (See pp. 57–58, this issue.)

DECLINING to hear the *International Union of Electrical Workers* v. *the General Electric Co.* coalition bargaining case, the Supreme Court remanded it for a decision as to whether it is moot because the parties were able to reach a contract. (See MLR, November 1966, pp. 1271–1272.)

January 17

U.S. LOCALS of the International Union of Mine, Mill and Smelter Workers voted to merge with the United Steelworkers. The Mine, Mill union has about 30,000 members in the nonferrous metal mining, smelting, and refining industry, while the 1.1 million member Steelworkers has 38,000. (See pp. III–IV, this issue.)

January 30

EMPLOYERS and the Dressmakers' Joint Council of the Ladies Garment Workers reached agreement on a 3-year contract covering about 40,000 workers in New York City and 40,000 in other New England plants. The agreement provides a 9-percent wage increase February 20 and an additional 6 percent in February 1968, improves vacation benefits, and strengthens contract language regarding work on imported garments.

MOHAWK AIRLINES and Local Lodge 75 of the Machinists reached agreement on a 1-year contract covering 500 mechanics. The settlement, which ended a 52-day strike, resolves a dispute over the terms of a pension plan and provides for the elimination of about 125 jobs in the next few weeks.

Developments in Industrial Relations*

JANUARY is often a month of relatively little bargaining activity, but January 1967 saw a number of major settlements—an indication of the heavy bargaining activity expected during the year. Eighteen-month agreements for about 135,000 members of four nonoperating brotherhoods brought to 280,000 the number in these brotherhoods covered in the late 1966–67 round of railroad negotiations. About 144,000 Railway Clerks had accepted a 12-month contract, in mid-December—2 weeks before their contract was subject to revision. The six unions representing 145,000 shop craft workers were still bargaining,[1] as were three operating unions (the Switchmen, Conductors and Brakemen, and the independent Locomotive Engineers), bargaining for about 62,000 workers. Other agreements concluded during the month involved the Brotherhood of Railway and Steamship Clerks and REA Express. A settlement was reached by the Philadelphia Transportation Co., and the Transport Workers after a 1-day strike.

By January 20, the Oil, Chemical and Atomic Workers, which represents about two-thirds of the country's oil refinery workers, had concluded its round of bargaining in refineries. The 2-year contracts were the first in the industry's history to provide deferred wage increases. Teachers were in the news again as 23,000 of them in Chicago public schools and 684 at eight Cook County junior colleges were included in new contracts. In New York City, 4,000 Plumbers in the construction industry ended a 6-month strike on January 5. The Plumbers returned to work under a "memorandum of understanding" while a bargaining committee continued attempts to resolve outstanding issues.

In 1966, all measures of strike activity reached their highest levels since 1959, but the percentage of total estimated worktime lost because of stoppages only increased to 0.19 from 0.18 percent in 1965. In 1959, the Steelworkers conducted a major strike against major steel producers, and the percentage of time lost amounted to 0.61 percent. Some 4,200 stoppages involving 1,800,000 workers began during the year, compared with 3,963 stoppages, idling 1,550,000 workers in 1965. In 1966, 25 million man-days were lost as a result of strikes, compared with 23.3 million man-days the previous year.[2]

In his annual economic report to the Congress, President Lyndon B. Johnson appealed to business and labor "in their own interest and that of the Nation—for the utmost restraint and responsibility in wage and price decisions." He stated that if unions attempted to recoup in wages all past or anticipated advances in the cost of living, and if business passed along rising costs when it would be possible to absorb them, the result would be a wage-price spiral "damaging to business, damaging to labor, and disastrous to the Nation." The accompanying Annual Report of the Council of Economic Advisers recognized that recent increases in living costs made it unlikely that most collective bargaining settlements in 1967 would fully conform to long-term productivity trends.[3] However, the Council saw "no useful purpose to be served by suggesting some higher standard for wage increases, even on a temporary basis." The report added that "the only valid and noninflationary standard for wage advances is the productivity principle."

Petroleum

During the first 3 weeks of January, the Oil, Chemical and Atomic Workers (OCAW) signed 2-year contracts—the first in the industry's history to provide deferred increases—covering about two-thirds of the country's 90,000 oil refinery workers. First-year wage increases followed a previous round of wage adjustments by about 15 months; for a number of years petroleum wages had been changed about every 18 months to 2 years. Gulf Oil Corp., was the first to come to final agreement with the union, when, on January 4, a contract was reached for some 3,100 employees of its Port

*Prepared in the Division of Wage Economics, Bureau of Labor Statistics, on the basis of published material available in late January.

[1] On January 28, President Johnson acted under the terms of the Railway Labor Act and named a three-man emergency panel to study the issues and make recommendations within 30 days. The action prevents a strike for an additional 30 days.

[2] Estimates are preliminary.

[3] See pp. 47–49 of this issue.

Arthur, Tex., refinery; this contract set a pattern for other final settlements.

The settlements provided a 14-cent-an-hour wage increase effective on January 1, 1967, with an additional 4 percent a year later; shift differentials of 10 and 20 cents an hour instead of 8 and 16 cents, respectively; and an increase in contributions for hospital and medical insurance for married employees, varying from $3 to $5 a month; as well as improved job security provisions consisting of a guarantee of wage rates for employees demoted through no fault of their own and advance notice of layoff, with the union having the right to strike in case of such layoffs.[4]

Some contracts provided additional changes. The Gulf settlement included classification adjustments to be effective on January 1, 1968, and an increase in pensions; pensions were also changed in a few other contracts. At Sinclair Oil, where the 1964 settlement was limited to benefits—a year when other companies put into effect packages stressing wage increases—an additional 2-percent wage increase was effective on January 1, 1967.

After the Gulf settlement, an additional 2-cent-an-hour wage increase was put into effect at Humble, and some Humble units also agreed to the 4-percent deferred wage increase while others agreed to a wage reopening as of January 1968. Interim increases in wages and benefits in October and November 1966 preceded these settlements at most units of Humble Oil. These interim adjustments included a 12-cent-an-hour wage increase; a $5-a-month increase in the company's contribution to hospital and medical insurance for married employees; and the 25-percent increase in shift differentials. Most Humble units reportedly had job security provisions similar to those negotiated at most other companies.

Contracts due to expire on December 31 were extended to midnight, January 8, when a few work stoppages occurred, but workers at most companies remained on the job as negotiations continued. Texaco, Inc., in Port Arthur, Tex., was struck as some 3,200 workers walked off the job on January 9, and a work stoppage involving 520 workers at the Cleveland and Toledo, Ohio, refineries of Standard Oil Co. (Ohio), occurred when agreements could not be reached by the extended deadline.

Major companies reaching agreements with the OCAW on contracts similar to the Gulf settlement included American Oil Co., Atlantic-Richfield, Inc., Cities Service Oil Co., Mobil Oil Co., Shell Oil Co., Sinclair Oil Co., Standard Oil Co. (Ohio), and Texaco, Inc.

Apparel

Wage reopening provisions contingent on stipulated minimum rises in the Consumer Price Index were exercised by the Ladies' Garment Workers under two contracts in the dress and sportswear industry. Although reopening clauses of this nature have been widespread in the apparel industry since the mid-1950's, they have generally provided for a reopening if the CPI rose at least 5 percent, and seldom resulted in interim wage increases during the years from 1962 through 1965. In 1966, a number of settlements reduced the minimum CPI increase required to trigger a reopener to 2 or 2½ percent.

About 5,000 workers in St. Louis and other Missouri areas and in Arkansas and Illinois received an increase in wages effective November 14, 1966, under this type of provision. A 3-year contract negotiated in February 1966 between the union and the Associated Garment Industries of St. Louis provided for a reopening on wages if the BLS CPI rose at least 2 percent above the level for February 1966 and the Federal minimum wage was raised. Pieceworkers received an increase of approximately 2.46 percent, cutters and graders 15 cents an hour, and other timeworkers 2¼ percent. Additional increases of approximately 3.28 percent, 20 cents an hour, and 3 percent respectively were to be effective on February 1, 1968.[5] The reopening agreement provided increased minimum rates, effective February 1, 1967, ranging from $1.75 an hour—instead of $1.60—for shipping and receiving clerks and packers with 6

[4] The period of rate guarantee for demoted workers varied among settlements, as did the period of advance notice. At Gulf, workers were guaranteed their former rates for 18 weeks, plus, for those with 15 years of service, 1 additional week for each year the agreement continued the provision negotiated in 1962 requiring the company to give 60 days' notice of layoff, and the union 60 days' notice of intent to terminate the contract.

[5] The reopening settlement revised the following deferred wage increases which were to become effective February 4, 1968, under the original 3-year contract: 3.36 percent for pieceworkers, 15 cents for cutters and graders, and 3 percent (minimum 5 cents an hour) for other timeworkers.

months of experience, and for examiners, finishers, and bundlers with 3 months of experience to $3.50—instead of $3.40—for pattern graders. New minimums ranging from $1.95 to $3.70 were to be effective on February 1, 1968.

In San Francisco, a cost-of-living wage reopener in the Garment Union's contract with dress and sportswear firms resulted in an arbitration award of 4 percent in wage increases, effective December 1, 1966, for 2,200 workers. Negotiated in August 1964, the 3-year agreement provided for a wage reopening when the San Francisco CPI rose 3 percent above the index for September 1964. The union sought an increase after the index had risen 3.78 percent by June 30, 1966.

The H. W. Gossard Co., and the Ladies' Garment Workers reached agreement in mid-December on a 3-year contract for 2,000 workers in the foundation garment and lingerie divisions in five Midwestern and Central States. A 6-percent wage increase was retroactive to September 1, 1966, and an additional 4 percent was to be effective February 1, 1968; minimum rates were to be increased in three steps. As a result of wage increases and higher craft minimums as well as other adjustments over the 3 years, pay increases to timeworkers will range up to 83 cents an hour. The contract may be reopened on wages if the CPI increases by 2½ percent by December 1967, or thereafter. Vacation improvements provided 2 weeks after 3 instead of 5 years of service, a third week after 20 years, and effective in 1968, the third week after 15 years of service. The company's contribution to the union's national retirement fund was increased to 2½ from 2 percent; hospitalization, sickness, and health benefits were improved for workers in the foundation division shops; and jury duty and funeral leave provisions were liberalized.

Transportation and Utilities

Class I railroads and the negotiating committees for some 135,000 workers in 4 of the 11 nonoperating railroad brotherhoods reached agreement on January 14.[6] The 18-month contracts provided 5-percent wage increases effective on January 1, and 2½ percent effective January 1, 1968. In addition, employees were to receive 3 weeks of vacation after 10 instead of 15 years of service.

Another nonoperating brotherhood, the Railway Clerks (BRSC), settled in mid-December on a 5-percent increase in a 1-year contract with the same vacation improvement.[7] Settlements had been reached in November with 2 of 5 operating unions, the Railroad Trainmen and the Firemen and Enginemen.[8]

The Brotherhood of Railway and Steamship Clerks (BRSC) and REA Express agreed in late December to extend their current contract one additional year, to July 1, 1968. The contract extension agreement affected 35,000 workers and provided a 5-percent wage increase on July 1, 1967, in addition to the 9-cent-an-hour deferred increase effective on January 1, 1967 afforded in the existing agreement.[9] Minimum weekly wages were to be raised to $126 from $120 as a result of the 5-percent increase. For employees with 2 years or more of service, severance pay of $75 to $90 a week was established, and those whose jobs are moved will be reimbursed for moving expenses and losses resulting from selling their homes.

On January 15, the Philadelphia Transportation Co., and the Transport Workers agreed to a settlement covering 5,000 employees. The 2-year pact provided wage increases of 15 cents an hour on January 15 of 1967 and 1968, and 12 cents an hour on July 15, 1968. The contract also improved supplementary benefits.

Improvements effective on January 15, 1967, included a fifth week of paid vacation after 25 years of service; company payment of the full cost of Blue Cross-Blue Shield insurance along with any increases in premiums occurring during the term of the agreement (previously the company paid the full cost but the employee had to pay for any increases in premiums); a decrease to 3 from 7 days in the waiting period for paid sick leave; $75 instead of $70 a week for the first 28 days of illness, and $65 instead of $60 a week for the next 72 days; and the establishment of 3 days funeral leave.

Effective January 15, 1968, improvements were to include a 10-cent-an-hour inequity adjustment to bring conductors' pay to the motormen's scale;

[6] Brotherhood of Railroad Signalmen (BRS), Brotherhood of Maintenance of Way Employees (BMWE), Hotel and Restaurant Employees and Bartenders International Union (HREU), and Transportation-Communication Employees Union (TCE)

[7] See *Monthly Labor Review*, February 1967, p. 67.

[8] See *Monthly Labor Review*, January 1967, p. 64.

[9] See *Monthly Labor Review*, July 1966, p. 783.

an eighth paid holiday, Good Friday; $175 instead of $125 normal pension benefits; $140 rather than $100 a month early and disability pension benefits; $50 instead of $25 lump-sum severance payment for each year of service; and $50 rather than $42.50 a year tool and clothing allowance. On July 15, 1968, group life insurance coverage was to be increased to $2,500 from $2,000.

Announcement was made on December 21 of an agreement between the Tennessee Valley Authority and the Tennessee Valley Trades and Labor Council,[10] representing some 10,900 employees. The agreement provided increases in hourly rates ranging from 12½ to 22½ cents, and annual increases for salaried employees ranging from $185 to $360. The raises became effective on December 25 for 4,900 operating and maintenance employees and on December 31 for 6,000 hourly construction employees.

A 4-year agreement was reached in mid-December between the Pacific Gas and Electric Co., and the Electrical Workers (IBEW), representing 13,500 operations, maintenance, and construction employees in northern and central California. Wages were increased 4 percent retroactive to July 1, 1966, with additional 4-percent increases in July of both 1967 and 1968; provisions were made for a wage reopener in the final year of the contract and for a cost-of-living adjustment in 1968. The company's monthly contributions to hospital-medical premiums were increased to $6.50 for employees only (from $5.50), to $9.25 for employees with one dependent (from $8), and to $13.75 for employees with two or more dependents (from $11.75). Employees were also to receive a "bonus" week of vacation for each 5 years of service.

On December 12, the Communications Workers at Michigan Bell Telephone Co., ratified a 3-year contract, which followed the Bell pattern. Although they had rejected a similar agreement in late October employees had continued on the job. Wage increases ranged from $3.50 to $8 a week, with additional classification adjustments ranging up to $5 a week to employees in some communities. The contract covered 17,000 employees in the plant, traffic, and accounting departments.

Southern New England Telephone Co., and the Connecticut Union of Telephone Workers (Ind.) agreed on December 14 to a similar contract providing wage increases ranging from $3.50 to $9 a week. The 3-year agreement was retroactive to November 6, and covered 8,900 employees. Shift differentials, holiday call-out pay, and meal allowances were also improved.

About 24,000 long-distance telephone operators, communications, administrative and clerical employees in 47 States were covered by a 3-year agreement reached on January 17 between the Communication Workers and the American Telephone and Telegraph Co.'s Long Lines Department. The agreement provided wage increases ranging from $3.50 to $8 a week, with a wage reopener after 18 months. The Michigan, Southern New England, and Long Lines contracts included improvements in vacations, pensions, and health and welfare benefits similar to those negotiated for employees of other Bell System Companies in recent months.

Government and Services

Some 7,500 New York City welfare workers[11] ended a 3-day strike on January 19 by voting to accept a mediator's proposal for factfinding on wages—the major issue in dispute. The union had demanded a 25-percent reduction in caseloads. Although the city offered the use of caseworker's aides to alleviate workloads, it refused to lower the number of cases assigned. The Social Service Employees also put forth "professional demands" to improve the Welfare Department's services, but the city refused to bargain on these issues on the grounds that policy questions could be decided only by administrators of the Welfare Department.

The Chicago Teachers Union and the Chicago Board of Education concluded an agreement on January 8, 1967, which provided a $500-a-year salary increase for 23,000 public school teachers. Medical, leave, and other benefits also were improved.

Representing 684 teachers in eight junior colleges, the Cook County College Teachers Union and the Chicago City College Board of Education agreed on a settlement that gave teachers a $20-a-month increase retroactive to January 1, 1967, and $30-a-month increase on September 1, 1967. The

[10] Consisting of 16 craft unions.

[11] Caseworkers, home economists, homemakers, and children's counselors, represented by the Social Service Employees Union.

previous average salary for the college teachers was $9,000 a year. Other benefits for the college instructors included a reduction in class load to four from five 3-hour sessions weekly for most teachers; reduction in class size to 25 students in some classes and 35 in others; and liberalized leave and insurance provisions. Settlement was reached while the union was conducting its second strike in 40 days. The first, from November 30 to December 2, sought union recognition; the second, over wages and benefits, disrupted classes on January 6.

Virginia announced a 10- to 15-percent pay raise, effective February 1, for 8,400 State employees in clerical and related categories. The previous increase was in December 1965.

About 8,500 civil service employees in St. Louis benefited from a two-step salary increase announced in December by the Board of Aldermen. The first increase ranged from 5 to 15 percent and was effective in January. The second increase, a flat 5 percent, was to be effective in March.

In early December, New York City officially accepted a contract with the School Crossing Guards' Association, which currently represents 1,450 employees but expects to represent 2,328 by June 30, as the force is expanded. Hourly rates were increased to $1.80 from $1.75 for new hires, to $1.95 from $1.85 for guards with 1 year of service, and to $2.15 from $2 for those with 2 years of service. Effective September 1967, employees in each of the categories will receive an additional 10-cent increase. (The maximum workday for crossing guards is 5 hours).

The Michigan Nurses' Association (MNA) negotiated its first contract for registered nurses in the State of Michigan. The early December contract covering some 124 registered nurses at Highland Park General Hospital in Detroit raised annual scales for staff nurse to $6,484 from $5,792, and provided a new maximum of $9,609 for nursing instructors with master's degrees—an increase of $600. The MNA represents some 8,000 of the 20,000 nurses in Michigan. The State's public employment act of 1965 which provides for collective bargaining between public employees and city and county governments had led the MNA to initiate negotiations throughout the State.

The Associated Press and the Wire Service Local of the Newspaper Guild reached a 2-year agreement on January 8, giving 1,380 employees general wage increases ranging from $4 to $7 a week effective January 1, 1967, and from $3.25 to $6 the second year. The agreement also raised minimum rates. The top minimum for newsmen in class I (large) cities was increased to $200 weekly the first year and $207 the second (instead of $188.75). Top minimums in class II (other cities) were set at $194 and $202, instead of $179, thereby narrowing the geographic differential by $4.75. Additional adjustments were provided for employees whose former pay was below the new minimums.

Subject to membership ratification, the contract included a 37½-hour workweek for all employees except newsmen and photographers who continue on a 40-hour workweek. Employees discharged because of automation were given the option of increased dismissal pay or $1,000 for retraining for jobs outside the news service.

Metalworking

A 3-month strike by 12,000 members of Electrical Workers (IUE) Local 301 against the General Electric Co., in Schenectady, N.Y., ended early in January.[12] The settlement eliminated the last three transition pay cuts for incentive workers which had been agreed upon in 1964 as part of the "Make Schenectady Competitive" (MSC) program.[13] The new contract provided that language in the MSC agreement relating to incentive work was not to apply to daywork operations. Other provisions included a review of hourly job evaluations, with "red circle" rates for long-service employees, and "reasonable payments" for time spent by union representatives discussing the reviews with management.

On January 3, J. I. Case Co., and the Automobile Workers announced agreement on a 3-year master contract covering 7,000 workers at six plants in the mid-West and one in California.[14] Previously, bargaining had been on an individual plant basis. The contract provided wage increases

[12] The Electrical Workers walked out on October 17 and ratified the GE offer on December 30. They did not return until January 9, having refused to cross picket lines of 1,000 teamsters, draftsmen, and plumbers, who were out over local grievances.

[13] The MSC program was initiated by GE to lower labor costs and thus enable the company to remain in Schenectady. The 1964 agreement allowed the company to transfer some 3,000 incentive workers to straight hourly wages. For further details see *Monthly Labor Review*, December 1964, p. 1436.

[14] Racine, Wis.; Rock Island and Rockford, Ill.; Burlington and Bettendorf, Iowa; Terre Haute, Ind.; and Stockton, Calif.

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ranging from 9 to 22 cents an hour each year. Quarterly escalator reviews were established, providing a 1-cent adjustment for each 0.4-point change in the CPI—with the stipulation that the first 4 cents in adjustments due under the formula be applied toward the cost of supplementary benefits. A company fund of $130,000 was set up to eliminate inequities; Christmas and New Year's Eve were added as eight and ninth paid holidays; and, effective the second year, 5 days of annual paid "casual" leave was established.

An improved pension plan provided $6 a month for each year of credited service. Early retirement at full pension rates at age 62 was included, as was a survivorship option and vesting after 10 years of service. Other terms included a reduction in employee contributions to finance the cost of group insurance; $4,500 (instead of $4,000) life insurance; and $55 to $75 a week sickness and accident benefits (depending on the wage bracket) for 52 weeks (from a flat $50 a week for 26 weeks).

Transition and bridge benefits similar to those in the 1964 automobile settlements were included. "Transition benefits" provide $100 a month for 24 months to the widow under age 50 or other eligible dependents of employees dying before age 60 who were covered by life insurance. If the widow is age 50 or above, "bridge benefits" provide $100 a month until remarriage or age 62.

Some 3,500 production workers had approved the company's offer on December 24, but settlement was delayed when some 300 skilled tradesmen rejected it, exercising their newly won veto power over agreements.[15] The skilled group was concerned over several items including binding language regarding the subcontracting of work. The company agreed to set up a subcontracting committee and make other improvements, and the offer was accepted.

Sunbeam Corp., (appliances) and the Machinists announced agreement on January 11, on a 3-year contract for 3,800 workers in the Chicago area. The settlement provided an immediate wage increase ranging from 4 to 5 percent and total increases of 10 or 11 percent over the contract term. In addition, there are provisions for increases in the second and third years to offset a rise in the consumer prices. Other terms included eighth and ninth paid holidays, an improved vacation schedule, increased pension benefits, and improved group insurance.

Wage increases totaling 21 cents an hour were agreed to by Sun Shipbuilding and Drydock Co., of Chester, Pa., and the Boilermakers in a 3-year agreement ratified January 8. Previously the rate for first-class mechanics was $3.28 an hour. Other provisions for the 4,000 employees included establishment of a pension plan and improved insurance.

Trade

First National Stores, Inc., and the Meat Cutters signed a 1-year contract covering some 7,000 employees in Maine, Massachusetts, New Hampshire, and Connecticut. The agreement gave meat and grocery department managers and other classified workers $5-a-week wage increases and other full-time employees $4. Part-time employees with less than 3 years of service received 7½ cents more an hour, while those with 3 or more years of service received 10 cents. A major medical provision was added to the health and welfare plan.

Negotiations by Local 328 of the Meat Cutters, located in Providence, R.I., continued with First National Stores, Inc., and Stop and Shop, Inc. Formerly, the local had bargained together with other New England locals.

An estimated 6,000 employees of Dayton Co., department stores located in Minneapolis, Rochester, St. Paul, and Southdale, Minn. received increased employee benefits as a result of recent company action. A liberalized hospital-medical plan increased the daily hospital room allowance from $12 to $20 for employees and their dependents. A new sick leave plan related benefits to length of service with employees receiving two-thirds of their weekly pay up to specified maximums.

Beginning in 1967, all employees with at least 6 months of service were to receive a "personal" paid holiday in addition to the existing 6 paid holidays. A new retirement plan insured employees retiring after 30 years of service an income of at least $60 a month. The company was also to establish a savings plan whereby an employee could deposit from 2–5 percent of his base pay up to $1,000 a

[15] See *Monthly Labor Review*, July 1966, pp. 733–35.

year with the company matching half that contribution.

A novel no strike, no lockout clause was included in agreements for waitresses and kitchen employees of two of the largest New York City area restaurant chains.[16] Both contracts were formally signed in January for 4,500 members represented by Local 11 of the Hotel and Restaurant Employees. They stipulated that the union "voluntarily declares its opposition to the use of the strike, under any circumstances, either as an instrument in the settlement of disputes arising out of opposing interpretations of the existing contract, or after the termination of this agreement, as an instrument to promote its program." In return, the companies agreed not to lock out employees or engage in antiunion activities. Bargaining is to begin 3 months before the contract expires, with automatic extension and binding arbitration if agreement is not reached by the expiration date.

Economic provisions of the 3-year Schrafft agreement included wage increases of $2 a week for tipped workers and $3 a week for nontipped workers each year. (Waitresses previously earned $36 a week plus tips while nontip employees' salaries ranged from $55 to $100.) Other terms included a $7-a-week employer contribution to the union's pension and welfare funds, improved vacations, and other benefits.

Construction

In the New York City construction industry, a 164-day strike by 4,000 members of Local 2 of the Plumbers and Pipe Fitters ended on January 5 after Peter Schoemann, president of the international union, intervened in the negotiations. Under a "memorandum of understanding" with two employer groups, the Association of Contracting Plumbers and the Metropolitan Master Plumbers, Inc., workers went back to their jobs while the bargaining committee continued discussions on unresolved issues. The strike had reportedly slowed or halted work by other tradesmen on projects, worth about $550 million.

Dealing with 2 of the 4 main issues, the memorandum established an office to locate jobs for out-of-work plumbers and established procedures for investigating contract violations involving stewards. Other issues to be resolved by the committee were union demands for both 7 hours of pay for 6 hours of work and selection of some new hires by means of a union hiring hall. Under the previous agreement, the contractors did all the hiring. The memorandum also provided a 15-cent-an-hour wage increase retroactive to June 30, 1966, and a 20-cent wage-benefit package increase effective January 5, 1967.

Other Developments

As a result of merger of the independent Mine, Mill, and Smelter Workers and the Steelworkers,[17] about 50,000 mine and smelter workers in the nonferrous metal industries will be able to bargain as a unit; contracts with major producers covering a majority of these workers expire in June 1967. The merger was ratified by the Mine, Mill convention in January 1967. Affiliation is scheduled to be completed by June 30, when temporary charters issued by the Steelworkers to 65 Mine, Mill locals on February 1, 1967, were to become final. President Albert C. Skinner and two other top officers of the Mine, Mill union were slated to become international representatives of the Steelworkers and other staff members of the dissolved union were to join the Steelworkers' staff.

West Virginia's first minimum wage law set a $1 an hour minimum effective January 1. An estimated 25,000 to 40,000 employees were affected. The law applies to employers of six persons or more, but excludes specific categories of workers, and individuals subject to Federal minimum wage legislation. In addition to its minimum wage provisions, the law generally calls for time and one-half pay for work in excess of 48 hours per week.

[16] Bickford's Restaurants, operated by Bickford, Inc., and Schrafft's Restaurants operated by the Frank G. Shattuck Co.

[17] See pp. III and IV of this issue.

Communications

EDITOR'S NOTE.—*The Monthly Labor Review is always eager to publish communications from its readers. Letters should be held to 500 words. The Review reserves the right to choose the comments for publication and to make minor editorial changes to clarify meaning and to reduce length to the prescribed limits.*

The letters below are inspired by the article in the February issue, by Professors Cain, Hansen, and Weisbrod, entitled "Occupational Classification: An Economic Approach."

The Heart of the System

OCCUPATIONS have been defined and classified in one manner or another for over 100 years, in both establishment and household statistics, but there has been considerable dissatisfaction with existing systems. The new edition of the *Dictionary of Occupational Titles* is the major example of recent efforts. Less well known is the work in progress in the Bureau of Labor Statistics on the development of an industry-occupational table for the entire economy, which brings together occupational data from a wide variety of sources. The occupational classification used is essentially that of the Census.

The Bureau of Labor Statistics is also studying occupational employment which will utilize occupational definitions drawn in large part from the DOT. The data will be obtained directly from employers by means of a mail questionnaire and are expected to generate a flow of timely information about occupations badly needed in connection with national manpower problems. Until we have constructed a common classification system for statistical purposes, however, it will be difficult to aggregate these figures to levels comparable to those presented in current labor force statistics.

Placing the problems into a theoretical framework, such as Cain, Hansen, and Weisbrod have done from the viewpoint of the economist, and as Hodge and Siegel[1] have done from the sociological viewpoint, is necessary if the statistical applications are to be wisely conceived and executed. It is no doubt true that the occupation classifiers have not only been vague about their principles of classification but also have allowed them to vary as they moved across the wide spectrum of jobs, to the consternation of users of the data. It has not yet been established, however, that a single system will suffice for all purposes. It may be necessary, in order to get some immediate payoffs in terms of usable data, to make rather heroic compromises.

The overall problem may be thought of as a system in which the development of the means of production is accompanied by the development of the manpower needed (a) to build the necessary capacity and (b) to operate it. Occupations are the result of the division of labor to do this job efficiently, or—as the article puts it—"employers choose among the alternative types of labor that are capable of producing given goods and services." As economists, they think in terms of factor prices and factor substitution possibilities.

The comment is made that discussions of "needs" and "requirements" for workers of various skills are likely to be deficient because they imply that substitutions among types of labor and between labor and capital cannot be made. Most serious studies do, I believe, take substitutability into account—not only at earlier stages in the projection but especially at later stages if an initial projection of requirements and supply shows the likelihood of a shortage.

In using the analogy to commodities one must bear in mind that "within-class" and "between-class" are two quite different things. Most commodity standardization is of the "within-class" variety.

"Work performed" or "kind of work done" would seem to be a desirable central principle for a classification system. It may be necessary to bring related elements into the definition of work performed, such as normal prerequisites for its performance. Ability to perform the work required in the work situation in which it must be performed then becomes the heart of the evaluation of labor supply.

—ROBERT B. STEFFES
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Bureau of Labor Statistics

[1] Robert W. Hodge and Paul M. Siegel, *The Classification of Occupations: Some Problems of Sociological Interpretation,* prepared for delivery at the annual meeting of the American Statistical Association, Los Angeles, Calif., August 1966.

An Addition to the Criteria

MESSRS. CAIN, HANSEN, AND WEISBROD concern themselves with the needs of economists for a system of occupational classification. Most of their views, however, appear to have more general application. Needs include not only job-skill and worker-skill categories, but also sets of data (numbers of jobs and workers) relevant to those categories. Although the *Dictionary of Occupational Titles* is the most comprehensive document to provide and describe such categories, available quantitative data have not usually been expressed in terms of these same categories. On the other hand, a wealth of data is expressed in terms of Census classifications, which lack the authors' requirement for job-skill and worker-skill descriptions. The first step to meet this need is the development of the convertibility list between the DOT and Census systems now jointly undertaken by the U.S. Employment Service and the Bureau of the Census. The Interagency Committee on Occupational Classification of the U.S. Bureau of the Budget proposes to go even further toward meeting this requirement of a Standard Occupational Classification System.

The authors set forth a list of attributes of an ideal classification system. Most of these are objectives of the planned Classification, and many are already incorporated in the third edition of the DOT. The Occupational Group Arrangement of the DOT provides the required homogeneous classes of jobs, and the Worker Traits Arrangement provides the means of identifying homogeneous classes of workers. The level of detail of classification desired by the authors is not met by some parts of the DOT system because its structure has been influenced by numbers of workers in certain classifications. For example, *Salesmen, Truck Drivers,* and *Welders* are classified in greater detail than *Faculty Members, College or University* because of the relative number of applications involved. However, in the development of the Standard Occupational Classification, the Interagency Committee plans to give minimum consideration to the numbers of workers in occupations, so that the level of detail of the system will best meet the variety of needs of its users.

The authors applaud the attempts at a two-way codification of occupational categories, one job-oriented and one worker-oriented, which appear in the third edition of the DOT. It also comes much closer to meeting the desire for a classification system adaptable to changes that occur over time than did the old DOT structure.

A need to measure and evaluate labor-resource flexibility, the essential theme of the paper, establishes a requirement for standardizing the classification of both occupations and job-worker data in the same system, and the authors have made an interesting and significant contribution to the criteria that must be considered.

—A. B. ECKERSON
U.S. Employment Service

The meaning of work has changed in our times. Most of us are no longer bound, as our forefathers were, to long, hard labor on the land and in the mill. But we are bound to our work in other ways—what a man is has become closely involved with what he does, both in his own mind and in the eyes of others. And this identity through work keeps changing as men derive more status and have a sense of achievement and satisfaction in their daily occupational activities.

—Marc A. Fried, "Is Work a Career?" *Trans-Action,* September–October 1966.

Book Reviews and Notes

Cross-fire on Poverty

Growth and Welfare in the American Past. By Douglass C. North. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1966. 192 pp., bibliography. $5.95.

Economic Progress and Social Welfare. Edited by Leonard H. Goodman, New York, Columbia University Press, 1966. 233 pp. $5.

Do we want economic growth or social welfare? In Mr. Goodman's words, "The 'well-being of the population' differs little from the 'social welfare of the population.'" In a directly opposed view, North implies that social welfare depends on growth. There's evidence in the Goodman volume that the social welfarists have fallen into their own statistical trap. Their official statistics exclude all but activities concerning the economic and social well-being of people. For them, social welfare increases from increases in official welfare payments (activities). For North, welfare increases from adding to income faster than to population: "The consequences of a compounded real per capita growth rate of 1.6 percent per year dwarf all other welfare effects in our history (assuming no change in income distribution)."

Here's a paradox: If people leave welfare rolls, *ceteris paribus*, to go to jobs increasing the national income, North's welfare would rise, but social welfare would decline. North has produced a highly important new economic history. The reason for its significance lies in its methodology. He boldly applies modern statistical inference to test hypotheses against a "reasonable" alternative by looking at the extensive record. He finds that "Redistributing income or eliminating depressions would result in less gain to the poor or the whole society than they would derive from an even relatively short period of economic growth."

Was the New Deal a social revolution? Not from the record, answers North; employment was no fuller, growth no faster, and income no less unequally distributed—reasonable hypotheses to test the question.

North concludes: "Make mine Growth." But the second volume throughout implies: "Make mine Social Welfare." Starting strong with the fast-moving, big-business welfare dollar, its Joycean introspective monologue is, "Keep those welfare dollars rolling." Indeed, Ellen Winston boasts "social welfare is 'big business'. The welfare dollar is the fastest moving dollar in the community."

In a way, as Goodman reports it, the 1966 National Conference on Social Welfare seems, in the flush of victory, beset by doubts—what to do with Paradise Found?

Some skepticism creeps in. Lampman, brilliantly negotiating the transfer-payment maze, shows that the pretransfer poor got only $30 billion of 1964's estimated $97 billion. Rein and Miller look some gift horses in the mouth, like the Russell Sage studies which show social casework makes no appreciable difference in the behavior of client families. Carter and Hansen use operations research to ask social workers the embarrassing question: What are you trying to do?

Schottland discusses the slips betwixt the cup of welfare legislation and the lip of budget decisions. He concludes that if political action is good for social workers, influencing budgets is better.

Robert Nathan conducts his usual whirlwind tour through "social planning for economic abundance," at no loss for words. And Paul Jacobs tugs at the heartstrings of welfare administrators by describing poverty in the flesh.

The star essay for scope and insight, ranking with Lampman's virtuosity, is a searching study by Sheldon and Moore on measuring social change—not to be missed, but defying summary. In any event, the whole volume gives intimate insights into the social welfare odyssey, from postulate to passion to Parkinson.

Yet the crossfire remains. There is no confrontation between those who seek to advance social welfare by increasing expenditures for it and those who would rely on economic growth for the same ends. Perhaps the boldest suggestion is Rein-Miller's—to get out from behind professionalism's shield and let the issue be joined.

—Carl H. Madden
Chief Economist
Chamber of Commerce of the United States

Local Color

The Job Hunt. By Harold L. Sheppard and A. Harvey Belitsky. Baltimore, Johns Hopkins Press, 1966. 270 pp. $7.95.

The study involves an analysis of a local economy after interviews with 455 blue-collar workers and 77 white-collar workers, separated from their jobs in Erie, Pa. They had registered with the local public employment office during the 15-month period ending March 31, 1964. The blue-collar sample represented about 5 percent of the registered total.

Perhaps the best critique of this study is that of the authors in their Introduction:

> On the research side, we are convinced that our results in the Erie study warrant an expanded and systematic "curiosity" about the general applicability of our research techniques and their results among other samples of workers in other types of local economies. The social-psychological side of our research is a unique part of this study. It should be evaluated primarily in terms of its *exploratory* nature—as a beginning, subject to qualifications and further refinement, that may serve as a springboard for new research and demonstration on the role of social-psychological factors in the behavior of unemployed workers.

Erie County is a metalworking center; its manufacturing industries reached their employment peak in 1953 and a decade later still accounted for one-half the area's nonfarm wage and salary jobs. Findings for the county should be assessed in the light of reported causes of its "secular stagnation" which include—according to prominent industrial, financial, and community leaders—the following:

> Internal strife within old family-owned companies, the purchase and consolidation of local companies with companies outside Erie, which has resulted in the closing of Erie plants, opposition by established Erie companies to bringing in new firms which might be competition for labor or markets; labor-management relations which have not always been of the best; action by State and local governments, which have been interpreted as unfriendly to new industry; and a lack of positive concern about making Erie a good place in which to live and work.

If this statement accurately describes the nature of the county's employment problems, it should be hoped that they are not representative of the Nation as a whole or even of the employment problems of most declining areas. Recognizing limitations of their data, the authors nevertheless do generalize and offer national program recommendations and recommendations for further research. The latter warrant special attention.

—William Papier
Director of Research and Statistics
Ohio Bureau of Unemployment Compensation

Flight Patterns

Airline Industrial Relations: Pilots and Flight Engineers. By John M. Baitsell. Boston, Harvard University, Division of Research, Graduate School of Business Administration, 1966. 398 pp. $7.50.

Any attempt to examine an industry's industrial relations system must cope with formidable problems of coverage. Areas which need to be discussed are the sources of work practices, the levels and methods of wage compensation, the extent, nature, and history of collective bargaining, technological developments, accidental turns of personal leadership, and the play of product and market forces. In a regulated industry—and few are as regulated as the airlines—government action is widely pervasive and must be credited with important and sometimes independent influence.

Professor Baitsell has made a valiant effort to analyze an entire industry by focusing upon a limited number of issues. Most of the discussion refers to the Air Line Pilots Association, with briefer reference to the Flight Engineers Association. Much space is devoted to wage compensation, pilot pensions, and work assignments, with emphasis on the historical development of each. The information is, on the whole, soundly handled and is supplemented by appropriate reference to the special characteristics of the scheduled airline industry.

To collect in one place, as is done here, so much material essential to the understanding of vexatious issues, is a valuable and useful contribution. However, the merits of this work are reduced by a naïveté in analysis which at times is self-contradictory.

The running thesis and major organizing theme is the excessive power of the Air Line Pilots, and a concern that employers "have given away too much" in noneconomic areas. While practically no standards are set up to measure managerial

concessions, there is an elaborate evaluation of the nature and basis of union power. Seven pages are given to the influence of former pilots as members of carrier bargaining teams (which the author regards as a boost to union power). Although pilots would never engage in slowdowns according to Baitsell, the cost of deliberately lengthening flights as an economic weapon "cannot be dismissed." But the author emphasizes that the key to the carriers' weakness lies in their decision to abstain from industrywide bargaining and the consequent union whipsawing.

It would appear that inadequate recognition is given to employer values which are served by individual bargaining. Professor Baitsell, in his discussion of work assignment disputes, attacks the usefulness of a presidential commission on the grounds that each carrier is unique and must find its own "tailor-made" solution. However, this view is not fully incorporated in his formal analysis which also neglects the implications and employer advantages which are to be found in such events as the pilot schism on American Airlines. While acknowledging the fact that industrywide negotiations would invite more government intervention and might contribute to a possible breakdown of bargaining, the author stops short of understanding that this would end traditional bargaining entirely. After all, individual bargaining has not interfered with the rapid growth and extraordinary profits enjoyed by the industry in recent years.

—Philip Ross
School of Business Administration
University of Pittsburgh

Cost of Culture

Performing Arts: The Economic Dilemma. By William J. Baumol and William G. Bowen. New York, Twentieth Century Fund, 1966. 582 pp. $7.50.

Professors Baumol and Bowen have contributed a major addition to the literature concerning both the performing arts in the United States and the economics of nonprofit institutions. Specifically, they present a scholarly, systematic, and rigorous exposition of the financial problems facing symphony orchestras, opera companies, dance groups and the theatre.

The book is organized into three parts. The first section describes the current state of economics in the performing arts; here, the authors neatly demolish the popularly held concept that the United States is undergoing a "culture boom," with regard to the higher performing arts.

Professors Baumol and Bowen also discovered that the performing arts were playing to a predominantly young, white-collar professional and managerial assemblage, one that is "exceedingly" well-educated and economically well-off. Blue-collar workers accounted for only 2 to 3 percent of the audience. They estimated that the audience going to one or more performing arts programs consisted, in total, of no more than 5 million individuals. Considering the posture of many arts organizations (excepting the commercial theatre)—that they are community service organizations seeking to perform before the widest audience—they apparently have failed to achieve a basic goal. It becomes almost imperative, as a result, for arts groups to reevaluate their appeal to the community. They do not necessarily have to play before a mass audience, but 5 million individuals indeed makes the performing arts too much of a minority attraction.

In examining compensation, the authors conclude that "society has not been overly generous" to the performing artist. But, the authors point out, arts organizations are unable to pay better. In their second section, they indicate why: (1) performing arts technology is stable and cannot keep pace with rising costs; and (2) the sale of tickets does not return sufficient revenue to cover disbursements. The gap between revenue and costs is growing and will continue to grow. Consequently, most arts organizations must depend on contributions to keep alive. Baumol and Bowen's third and final section, therefore, is devoted to sources and levels of contributed income.

Again their conclusions about individual, corporate, foundation, and government giving are not optimistic: Inexorably, they lead us to the conclusion that the survival of performing arts requires larger government expenditures than have thus far been given.

The publication of this study in late 1966 was timely. It followed a series of collective bargaining disputes which underscored basic economic difficulties. Ballet companies in national negotia-

tions, the Metropolitan and New York City Center operas, and the Los Angeles, Philadelphia, and Indianapolis symphony orchestras all experienced strikes. The results of bargaining in 1966, at least for symphony orchestras, exceeded Baumol and Bowen's projection of the annual rate of increase in the compensation component of costs. Thus, the urgency of the economic pressures which they described has increased even further.

But 1966 was also a year in which the Ford Foundation contributed $80.2 million in endowment and development funds to symphony orchestras, in which the Arts and Humanities Foundation exhibited vigor and originality in allocating Federal funds, in which performing arts organizations and boards of education experimented with joint ventures, encouraged by the Elementary and Secondary Education Act of 1965, and in which State and municipal support to the arts increased. Thus, there was also some reason for optimism.

The authors support their findings with a wealth of information, including a statistical appendix of more than 100 pages. Theirs is the kind of data from which reasonable policy decisions may flow—especially concerning the support role of Federal and subordinate government bodies.

One might expect that an economics text involving the performing arts might be written with style; in addition, this is a readable, well-organized exposition of significant findings.

—Leon E. Lunden
Division of Industrial and Labor Relations
Bureau of Labor Statistics

Summaries of Recent Books

Planning for a Nation of Cities. Edited by Sam Bass Warner, Jr. Cambridge, Mass., The M.I.T. Press, 1966. 310 pp. $2.95 (paperback).

Challenge to the Cities: An Approach to a Theory of Urban Leadership. By Henry W. Maier. New York, Random House, Inc., 1966. 210 pp. $2.50 (paperback).

Urbanization in Newly Developing Countries. By Gerald Breese. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1966. 151 pp. $4.95 (cloth); $2.50 (paperback).

The "gap between what a thoughtful citizen is entitled to expect from urban planning and public policy, and the contemporary performance of American cities is the subject of this book," says Professor Warner about his compilation on city planning. The project of the book originated with the urban faculty of the Washington University in St. Louis, Mo., as the university's contribution to the celebration of the city's bicentennial in 1964.

The threads of common concern that run through the 16 essays originate in three fundamental problems to which city planners should provide optimum solutions. These are: The kinds of jobs cities should be able to offer; the nature of "physical settings" they should possess; and the public services (primarily as regards welfare and education) they should be able to provide. The question of public policy—particularly the role of Federal Government—in urban planning is paramount in these considerations, and is given prominence in the book. The first part is entitled "The Federal Responsibility."

The remaining three parts of the book are: "Work and the Quality of Urban Life," "Responsive Physical Planning," and "Responsive Urban Services."

The volume by Mr. Maier focuses on one of the vital urban problems—how to run a large city efficiently. The author is the present mayor of Milwaukee, Wis., and his story relates how he developed a formula for successful "creative . . . institutional leadership" and applied it to his burdensome office.

The mayor reduced his formula to an alphabetical expression—D–STEPP, each of the initials standing for a different conceptual "ingredient" that is fully developed in a separate chapter, or chapters, of the book. Thus, D stands for decision-making, S—for strategy, T—for tactics, E—for enrollment (of people in support of a given project), P—for power (personal and official of the leader), and the other P—for philosophy, which seems to be that a mayor does his job best if he succeeds in enlisting active cooperation of those he leads.

Gerald Breese's work deals with urbanization in certain foreign lands, which usually takes place more randomly than not. The book is one of the latest volumes of Princeton University's "Modernization of Traditional Societies" series. In

this scholarly study, Dr. Breese undertakes to cope not only with the "how" but also with the "why" and the extent of rapid proliferation and growth of cities in the newly developing countries (other than the "Anglo-European" countries). He analyzes social and economic as well as cultural and environmental inducements in this process, describes the inhabitants of the cities and how they found themselves there, and touches upon "the shape of things to come"—the possible and foreseeable consequences of this rapid urbanization.

The author admits that the subject is too vast for adequate treatment in a slender volume like his, and says his book is intended as an "introductory discussion"—an invitation to further exploration.

Management Preparation for Collective Bargaining. By Meyer S. Ryder, Charles M. Rehmus, Sanford Cohen. Homewood, Ill., Dow Jones-Irwin, Inc., 1966. 151 pp. $9.95.

Based almost exclusively on personal interviews with about 100 representatives of 40 companies and employer bargaining associations, this study contains a methodical treatment of the two broad phases of the preparation process—collection and evaluation of the data necessary for bargaining, and decisionmaking regarding the goals and negotiation tactics. The authors describe the two functions in terms of timing, the locus and degree of responsibility, and the extent of participation by the corporate departments concerned.

Perhaps the least expected finding of the study was that it is "illusory" to assume that the usually complex prebargaining activity produces a "consensus 'management' position." "Management is multifaced and multivoiced," say the authors, "and its position is simply the one strongly defended at any given point of time."

Choice in Human Affairs: An Application to Aging—Accident—Illness Problems. By Elmer Luchterhand and Daniel Sydiaha. New Haven, Conn., College and University Press Services, Inc., 1966. 176 pp., bibliography. $5 (cloth); $1.95 (paperback).

The "mutual system of placement" (MSP) project was begun about 12 years ago by Dr. Luchterhand. The purpose was to develop a method of placing blue-collar workers in new jobs after having lost part of their physical capacity. The project was undertaken at the Aluminum Co. of Canada, and was aimed at providing the handicapped worker with a choice of jobs. The authors contend that the offering of choice in times of personal crisis gives the worker a feeling of competence and self-respect. Further, they maintain that, used on a wider scale, the choice concept could be a worthwhile part of a social program.

Economic Progress and Problems of Labor. By Frederick Baerwald. Scranton, Pa., International Textbook Company, 1967. 353 pp. $7.75.

Balancing a description of institutional structures with economic analysis, Professor Baerwald has written a text which emphasizes the progress of American workers. But he is also aware of a current problem—the quest for security. The author maintains that most of our population is dependent upon its daily work both for current income and for credits toward unemployment insurance pensions, sick leave, and social security. In this context, he is concerned with the effects on employment levels of both the shifting age structure of the population and technological change. He advocates continued research to ascertain that we have adequate social insurance coverage.

One of the first text books to analyze Medicare, it also covers other forms of social insurance, collective bargaining, labor force development, employment theories and goals, wage determination, and a brief history of organized labor.

Other Recent Publications

Education and Training

Educational Institutions in the Process of Economic and National Development. By Joseph R. Gusfield. Champaign, Ill., University of Illinois, Institute of Labor and Industrial Relations, 1966. 18 pp. (Reprint Series, 166; from Journal of Asian and African Studies, Vol. 1, No. 2.)

Increasing the Productivity of Collegiate Schools of Business. St. Louis, Mo., American Association of Collegiate Schools of Business, 1966. 111 pp. $1.75.

Educational Attainment of the Canadian Population and Labor Force: 1960–1965. By Frank J. Whittingham. Ottawa, Dominion Bureau of Statistics, 1966. 40 pp. (Special Labor Force Studies, 1.) 75 cents.

Evaluating to Reduce Training Costs. By O. C. Lott. (*In* Training and Development Journal, American Society for Training and Development, Madison, Wis., January 1967, pp. 38–41. $1.75.)

A Study of Standards for Apprentices in the Electrical Contracting Industry. By Cecile J. Newburg. Washington, U.S. Department of Labor, Bureau of Apprentice and Training, 1966. 22 pp.

The Job Finder: It Pays to Advertise. By S. Norman Feingold. Cambridge, Mass., Bellman Publishing Co., 1966. 37 pp., bibliography. $2.25.

Counseling: Bridge to Job Opportunity [*A Symposium*]. (*In* Employment Service Review, U.S. Department of Labor, Bureau of Employment Security, Washington, December 1966, pp. 1–8, 21–26, et seq. 40 cents, Superintendent of Documents, Washington.)

Vocational Guidance and Career Development. By Herman J. Peters and James C. Hansen. New York, Macmillan Co., 1966. 466 pp.

Techniques of Guidance: An Approach to Pupil Analysis. By Robert L. Gibson and Robert E. Higgins. Chicago, Science Research Associates, Inc., 1966. 264 pp.

Employee Benefits

Digest of 100 Selected Health and Insurance Plans Under Collective Bargaining, Early 1966. By Robert C. Joiner. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1966. 152 pp. (Bulletin 1502.) $1, Superintendent of Documents, Washington.

The Mine Workers' Welfare and Retirement Fund: Fifteen Years' Experience. By Robert J. Myers. (*In* Industrial and Labor Relations Review, Ithaca, N.Y., January 1967, pp. 265–274. $1.75.)

Public Policy and Private Pension Plans. By Edwin Shields Hewitt. (*In* Personnel Administration, Washington, November–December 1966, pp. 23–30. $1.25.)

Industrial Relations

1967 Guidebook to Labor Relations. Chicago, Commerce Clearing House, Inc., 1966. 376 pp. $5.

The Caterpillar Approach to Industrial Relations. Washington, Machinery and Allied Products Institute (in cooperation with Council for Technological Advancement), 1966. 81 pp. (MAPI Series, 5.) $2.

Collective Bargaining in the Public Schools. Princeton, N.J., Princeton University, Industrial Relations Section, January 1967. 4 pp. (Selected References 133.) 40 cents.

White-Collar Employees and the Unions at TVA. By Arthur Thompson and Irwin Weinstock. (*In* Personnel Journal, Swarthmore, Pa., January 1967, pp. 14–21. 75 cents.)

The Development and Enforcement of the Collective Agreement [*in Canada*]. By C. H. Curtis. Kingston, Ontario, Queen's University, Industrial Relations Center, 1966. 115 pp., bibliography. $6.50.

The Duty of Fair Representation—Revisited. By William C. Owen. (*In* Labor Law Journal, Chicago, December 1966, pp. 749–762. $1.35.)

The Cadillac Doctrine. By James R. Cox. (*In* Labor Law Journal, Chicago, December 1966, pp. 707–711. $1.35.)

Analysis of Work Stoppages, 1965. By Edward D. Onanian. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1966. 45 pp. (Bulletin 1525.) 35 cents, Superintendent of Documents, Washington.

Taft-Hartley Job Discrimination Victories. By Bernard L. Samoff. (*In* Labor Law Journal, Chicago, November 1966, pp. 643–663. $1.35.)

Arbitration of New Contract Wage Disputes: Some Recent Trends. By Richard Ulric Miller. (*In* Industrial and Labor Relations Review, Ithaca, N.Y., January 1967, pp. 250–264. $1.75.)

Labor Force

The Employment of Retired Military Personnel. By Laure M. Sharp and Albert D. Biderman (for Office of Manpower Policy, Evaluation, and Research of the U.S. Department of Labor.) Washington, Bureau of Social Science Research, Inc., 1966. xvi, 269 pp.

Summer Employment Directory of the United States: Summer Jobs for 1967. Cincinnati, Ohio, National Directory Service, 1966. 176 pp. $4.

Married Women in the Labor Force—An Economic Analysis. By Glen G. Cain. Chicago, University of Chicago, Economic Research Center, 1966. 159 pp. (Studies in Economics.) $6.50, University of Chicago Press, Chicago.

Changing Patterns in Women's Employment. Ottawa, Canada Department of Labor, Women's Bureau, 1966. 71 pp. 35 cents, Queen's Printer, Ottawa.

Coming to Grips With Unemployment. By Sar A. Levitan and Garth L. Mangum. (*In* The Reporter, New York, November 17, 1966, pp. 44–46. 35 cents.)

Scientific and Managerial Manpower in Nuclear Industry. By James W. Kuhn. New York, Columbia University Press, 1966. xv, 209 pp. $7.50.

Foreign Agricultural Workers and the Prevention of Adverse Effect. By Howard N. Dellon. (*In* Labor Law Journal, Chicago, December 1966, pp. 739–748. $1.35.)

Foreign Workers: A Problem of Social Adaptation. (*In* OECD Observer, Organization for Economic Cooperation and Development, Paris, December 1966, pp. 11–14. 50 cents. Distributed in United States by OECD Publications Center, Washington.)

Farm Workers in a Specialized Seasonal Crop Area, Stanislaus County, California. By William H. Metzler. Berkeley, University of California, Division of Agricultural Sciences, 1966. 90 pp. (Giannini Foundation Research Report 289.)

Interindustry Labor Mobility Among Men, 1957–60. By Lowell E. Gallaway. (*In* Social Security Bulletin, U.S. Department of Health, Education, and Welfare, Social Security Administration, Washington, September 1966, pp. 10–22. 25 cents, Superintendent of Documents, Washington.)

Manpower Projections—Selected References. Washington, U.S. Department of Labor, Library, November 1966. 18 pp.

The Selective Employment Tax and the Labor Market. By J. P. Hutton and K. Hartley. (*In* British Journal of Industrial Relations, London School of Economics and Political Science, London, November 1966, pp. 289–303. $2.80.)

Labor Organizations

Report of the 98th Annual Trades Union Congress, Blackpool, September 5th to 9th, 1966. London, Trades Union Congress, 1966. 611 pp.

Labor Organizations in Canada, 1966. Ottawa, Canada, Canada Department of Labor, Economics and Research Branch, 1966. 106 pp. 50 cents, Queen's Printer, Ottawa.

Union Labor in California, 1965. By James Roeckel and Raymond Schulze. San Francisco, California Department of Industrial Relations, Division of Labor Statistics and Research, 1966. 33 pp.

Job Attitudes of National Union Officials: Perceptions of the Importance of Certain Personality Traits as a Function of Job Level and Union Organizational Structure. By Edwin L. Miller. (*In* Personnel Psychology: A Journal of Applied Research, Durham, N.C., Winter 1966, pp. 395–410. $2.50.)

Personnel Management

How to Motivate People. By Richard B. Miller. Swarthmore, Pa., Assignments in Management, 1966. 42 pp., bibliography.

What Really Motivates Employees? By Victor H. Vroom. (*In* Business Management, Greenwich, Conn., November 1966, pp. 81–86. $1.)

Personnel Panorama, 1966: I, Canadian Federal Developments in Employer-Employee Relationships. By John J. Carson. (*In* Public Personnel Review, Chicago, January 1967, pp. 2–6. $2.)

Personnel Panorama, 1966: II, Personnel Developments on the U.S. Federal Level. By John W. Macy, Jr. (*In* Public Personnel Review, Chicago, January 1967, pp. 7–11. $2.)

Attitude to Efficiency in Industry: Report of a Working Party of Officials. London, Ministry of Labor, 1966. 35 pp. 30 cents, British Information Services, Sales Section, New York.

Human Resources and World Economic Development: Frontiers for Research and Action. By Charles A. Myers. (*In* International Labor Review, Geneva, November 1966, p. 435–448. 60 cents. Distributed in United States by Washington Branch of ILO.)

Is 9 to 5 an Outmoded Office Schedule? By Lewis E. Lachter. (*In* Administrative Management, New York, December 1966, pp. 20, 24–25. 60 cents.)

Prices and Consumption Economics

Comparative Prices of Nonferrous Metals in International Trade, 1953–64. By Irving B. Kravis and Robert E. Lipsey. New York, National Bureau of Economic Research, 1966. 56 pp. (Occasional Paper 98.) Distributed by Columbia University Press, New York.

Non-Wage Incomes and Prices Policy: Trade Union Policy and Experience. By Derek Robinson. Paris, Organization for Economic Cooperation and Development, Manpower and Social Affairs Directorate, 1966. 191 pp. $3.50, OECD Publications Center, Washington.

Productivity and Technological Change

Seminar on Manpower Policy and Program: Automation in the Perspective of Long-Term Technological Change. By Robert L. Heilbroner. Washington, U.S. Department of Labor, Office of Manpower Policy, Evaluation, and Research, 1966. 38 pp.

Technology and Manpower in the Telephone Industry, 1965–75. By Sheldon H. Luskin. Washington, U.S. Department of Labor, Office of Manpower Policy, Evaluation, and Research, 1966. 53 pp., bibliography. (Manpower Research Bulletin 13).

Arbitration and the Right to Automate. By John J. Adams and Jay E. Moyer. (*In* Automation, Cleveland, Ohio, January 1967, pp. 62–65. $1.)

Social Security

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Current Labor Statistics

TABLES

A.—Labor Force and Employment [1]

B.—Labor Turnover

C.—Earnings and Hours

D.—Consumer and Wholesale Prices

E.—Work Stoppages

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[1] Tables A–1 through A–6 are new monthly tables; A–7 and A–8 will appear quarterly in the February, May, August, and November issues of the *Review*. Tables A–9 through A–13 were formerly numbered A–2 through A–6. Old table A–1 has been discontinued.

NOTE: With the exceptions noted, the statistical series here from the Bureau of Labor Statistics are described in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168, 1954), and cover the United States without Alaska and Hawaii.

A.—Labor Force and Employment

TABLE A–1. Summary employment and unemployment estimates, by age and sex, seasonally adjusted

[In thousands]

Employment status, age, and sex	1967	1966												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
TOTAL															
Total labor force	80,473	80,154	79,934	79,360	79,268	79,247	78,905	78,767	78,194	78,349	78,091	78,050	78,245	78,893	77,178
Civilian labor force	77,087	76,764	76,612	76,081	76,039	76,069	75,770	75,668	75,149	75,341	75,117	75,126	75,355	75,770	74,455
Employed	74,255	73,893	73,897	73,199	73,195	73,141	72,846	72,730	72,253	72,542	72,266	72,341	72,410	72,895	71,088
Agriculture	4,015	4,011	3,892	3,779	3,886	3,935	3,926	3,981	3,902	4,199	4,113	4,155	4,144	3,979	4,361
Nonagricultural industries	70,240	69,882	70,005	69,420	69,309	69,206	68,920	68,749	68,351	68,343	68,153	68,186	68,266	68,915	66,726
Unemployed	2,832	2,871	2,715	2,882	2,844	2,928	2,924	2,938	2,896	2,799	2,851	2,785	2,945	2,875	3,366
MEN, 20 YEARS AND OVER															
Total labor force	48,591	47,842	47,604	47,493	47,465	47,506	47,370	47,376	47,278	47,404	47,297	47,301	47,286	47,437	47,115
Civilian labor force	45,239	44,987	44,797	44,723	44,736	44,822	44,723	44,759	44,707	44,811	44,769	44,783	44,797	44,787	44,857
Employed	44,227	43,898	43,711	43,654	43,655	43,688	43,577	43,615	43,624	43,731	43,617	43,645	43,620	43,667	43,422
Agriculture	2,861	2,884	2,807	2,800	2,875	2,852	2,846	2,854	2,888	3,035	2,974	2,997	2,952	2,894	3,174
Nonagricultural industries	41,366	41,014	40,904	40,854	40,780	40,836	40,731	40,761	40,736	40,696	40,643	40,648	40,668	40,773	40,246
Unemployed	1,012	1,089	1,086	1,069	1,081	1,134	1,146	1,144	1,083	1,080	1,152	1,138	1,177	1,119	1,435
WOMEN, 20 YEARS AND OVER															
Civilian labor force	25,221	25,139	25,145	24,884	24,938	24,504	24,321	24,193	24,081	24,019	23,942	23,993	24,077	24,427	23,687
Employed	24,128	24,167	24,278	23,891	23,994	23,556	23,422	23,271	23,142	23,139	23,070	23,112	23,150	23,507	22,630
Agriculture	702	729	663	593	645	652	684	690	631	712	735	744	754	675	748
Nonagricultural industries	23,426	23,438	23,615	23,298	23,349	22,904	22,738	22,581	22,511	22,427	22,335	22,368	22,396	22,832	21,882
Unemployed	1,093	972	867	993	944	948	899	922	939	880	872	881	927	919	1,056
BOTH SEXES, 16–19 YEARS															
Civilian labor force	6,627	6,638	6,670	6,474	6,365	6,743	6,726	6,716	6,361	6,511	6,406	6,350	6,481	6,557	5,910
Employed	5,900	5,828	5,908	5,654	5,546	5,897	5,847	5,844	5,487	5,672	5,579	5,584	5,640	5,721	5,036
Agriculture	452	398	422	386	366	431	396	437	383	452	404	414	438	410	439
Nonagricultural industries	5,448	5,430	5,486	5,268	5,180	5,466	5,451	5,407	5,104	5,220	5,175	5,170	5,202	5,310	4,598
Unemployed	727	810	762	820	819	846	879	872	874	839	827	766	841	836	874

TABLE A–2. Seasonally adjusted rates of unemployment

[In thousands]

Selected unemployment rates	1967	1966												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
Total (all civilian workers)	3.7	3.7	3.5	3.8	3.7	3.8	3.9	3.9	3.9	3.7	3.8	3.7	3.9	3.8	4.5
Men, 20 years and over	2.2	2.4	2.4	2.4	2.4	2.5	2.6	2.6	2.4	2.4	2.6	2.5	2.6	2.5	3.2
Women, 20 years and over	4.3	3.9	3.4	4.0	3.8	3.9	3.7	3.8	3.9	3.7	3.6	3.7	3.9	3.8	4.5
Both sexes, 16–19 years	11.0	12.2	11.4	12.7	12.9	12.5	13.1	13.0	13.7	12.9	12.9	12.1	13.0	12.7	14.8
White workers	3.3	3.3	3.1	3.4	3.2	3.3	3.4	3.4	3.5	3.3	3.3	3.3	3.5	3.3	4.1
Nonwhite workers	6.6	7.6	6.9	7.4	7.2	8.0	7.5	7.5	7.4	7.1	7.3	6.8	6.9	7.3	8.1
Married men	1.7	1.7	1.7	1.9	1.9	2.0	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.4
Full-time workers	3.1	3.3	3.4	3.4	3.4	3.4	3.4	3.7	3.4	3.3	3.3	3.3	3.4	3.4	3.5
Blue-collar workers	4.2	4.3	4.3	4.1	4.1	4.5	4.5	4.3	4.3	4.1	4.2	4.1	4.3	4.3	5.3
Experienced wage and salary workers	3.5	3.5	3.4	3.5	3.6	3.7	3.5	3.7	3.7	3.4	3.5	3.4	3.6	3.5	4.3
Labor force time lost [1]	4.1	4.1	3.8	4.1	4.2	4.2	4.5	4.7	4.3	4.1	4.1	4.0	4.3	4.2	5.0

[1] Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.

Beginning in this issue, the statistics on the labor force have been revised to take account of the definitional change which raised the lower age limit from 14 to 16 years of age. In addition, the seasonally adjusted series have been slightly revised due to the application of new seasonal adjustment factors which incorporate 1966 data.

TABLE A–3. Rates of unemployment, by age and sex, seasonally adjusted

[In thousands]

Age and sex	1967	1966												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
Total, 16 years and over	3.7	3.7	3.5	3.8	3.7	3.8	3.9	3.9	3.9	3.7	3.8	3.7	3.9	3.8	4.5
16 to 19 years	11.0	12.2	11.4	12.7	12.9	12.5	13.1	13.0	13.7	12.9	12.9	12.1	13.0	12.7	14.8
16 and 17 years	13.1	13.8	12.9	14.7	14.8	14.2	14.9	15.0	16.8	15.2	15.9	14.1	15.1	14.8	16.5
18 and 19 years	9.5	10.8	10.6	11.4	11.2	11.3	11.9	11.9	11.8	11.5	10.8	10.8	11.5	11.3	13.5
20 to 24 years	5.6	5.6	5.0	5.4	5.2	5.4	4.7	5.6	5.4	5.2	5.3	5.1	5.4	5.3	6.7
25 years and over	2.6	2.6	2.5	2.6	2.6	2.7	2.8	2.6	2.5	2.5	2.6	2.6	2.7	2.6	3.2
25 to 54 years	2.6	2.5	2.5	2.7	2.6	2.7	2.7	2.7	2.6	2.5	2.6	2.6	2.8	2.6	3.2
55 years and over	2.9	2.5	2.4	2.5	2.5	2.6	2.7	2.5	3.0	2.5	2.7	2.8	2.8	2.6	3.2
Males, 16 years and over	2.9	3.2	3.0	3.1	3.1	3.2	3.3	3.3	3.2	3.1	3.3	3.2	3.4	3.2	4.0
16 to 19 years	11.1	12.2	10.5	11.7	12.3	10.9	11.7	11.8	12.6	11.3	12.0	11.4	12.1	11.7	14.1
16 and 17 years	13.9	13.8	11.5	14.1	14.1	12.5	13.3	13.5	15.8	13.0	14.7	12.7	15.0	13.7	16.1
18 and 19 years	8.8	10.8	9.7	9.9	10.2	9.7	10.5	10.9	10.6	10.1	9.9	9.9	10.0	10.2	12.4
20 to 24 years	4.2	5.3	4.9	4.3	4.3	4.7	3.7	4.8	4.8	4.4	5.0	4.5	4.1	4.6	6.3
25 years and over	2.0	2.1	2.2	2.1	2.2	2.3	2.5	2.3	2.1	2.2	2.3	2.3	2.4	2.2	2.8
25 to 54 years	1.8	2.0	2.1	2.1	2.1	2.2	2.2	2.2	1.9	2.0	2.1	2.1	2.3	2.1	2.7
55 years and over	2.8	2.3	2.4	2.1	2.6	2.7	3.0	2.8	3.3	2.8	2.8	3.0	2.9	2.7	3.3
Females, 16 years and over	5.0	4.7	4.4	5.0	4.8	5.0	4.9	5.0	5.1	4.8	4.7	4.6	4.9	4.8	5.5
16 to 19 years	10.8	12.2	12.6	13.9	13.6	14.6	14.9	14.5	15.2	14.9	14.1	13.0	14.2	14.1	15.7
16 and 17 years	11.9	13.7	14.9	15.7	15.8	16.8	17.3	17.2	18.3	18.7	17.9	16.1	15.3	16.6	17.2
18 and 19 years	10.2	10.7	11.5	13.0	12.2	13.0	13.5	13.0	13.1	13.1	11.7	12.0	13.2	12.6	14.8
20 to 24 years	7.4	6.1	5.2	6.9	6.5	6.4	6.1	6.5	6.3	6.3	5.8	5.9	7.0	6.3	7.3
25 years and over	3.8	3.5	3.1	3.5	3.3	3.4	3.3	3.3	3.4	3.2	3.3	3.3	3.3	3.3	4.0
25 to 54 years	4.0	3.6	3.4	3.8	3.6	3.7	3.6	3.6	3.9	3.5	3.5	3.5	3.6	3.6	4.3
55 years and over	3.3	3.0	2.3	3.1	2.3	2.3	2.3	2.1	2.5	2.0	2.4	2.4	2.5	2.4	2.8

TABLE A–4. Employed persons, by age and sex, seasonally adjusted

[In thousands]

Age and sex	1967	1966												Annual average	
	Jan	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
TOTAL															
16 years and over	74,255	73,893	73,897	73,199	73,195	73,141	72,846	72,730	72,253	72,542	72,266	72,341	72,410	72,895	71,088
16 to 19 years	5,900	5,828	5,908	5,654	5,546	5,897	5,847	5,844	5,487	5,672	5,579	5,584	5,640	5,721	5,036
16 and 17 years	2,389	2,427	2,362	2,233	2,229	2,311	2,277	2,264	2,135	2,230	2,204	2,260	2,251	2,269	2,074
18 and 19 years	3,516	3,487	3,537	3,386	3,304	3,587	3,568	3,543	3,319	3,440	3,409	3,347	3,394	3,452	2,962
20 to 24 years	8,228	8,126	8,062	7,977	7,916	7,937	7,937	7,993	7,994	7,971	7,907	7,894	7,861	7,963	7,702
25 years and over	60,125	59,886	59,925	59,593	59,761	59,294	59,056	58,875	58,789	58,870	58,797	58,936	58,911	59,212	58,351
25 to 54 years	46,742	46,541	46,399	46,146	46,119	45,845	45,739	45,698	45,719	45,713	45,721	45,813	45,824	45,944	45,318
55 years and over	13,468	13,405	13,544	13,332	13,417	13,394	13,243	13,249	13,079	13,144	13,132	13,143	13,147	13,268	13,033
MALE															
16 years and over	47,533	47,116	47,011	46,824	46,769	47,036	46,917	46,960	46,736	47,016	46,859	46,849	46,876	46,919	46,340
16 to 19 years	3,306	3,218	3,300	3,170	3,114	3,348	3,340	3,345	3,112	3,285	3,242	3,204	3,256	3,252	2,918
16 and 17 years	1,453	1,463	1,451	1,369	1,347	1,405	1,399	1,406	1,288	1,389	1,367	1,398	1,386	1,390	1,284
18 and 19 years	1,867	1,802	1,858	1,790	1,778	1,934	1,930	1,910	1,789	1,891	1,883	1,852	1,877	1,862	1,634
20 to 24 years	4,721	4,588	4,594	4,586	4,570	4,592	4,575	4,607	4,599	4,615	4,640	4,607	4,617	4,599	4,583
25 years and over	39,493	39,259	39,098	39,085	39,090	39,087	39,002	39,005	39,025	39,099	39,004	39,085	38,990	39,069	38,839
25 to 54 years	30,776	30,519	30,331	30,313	30,302	30,311	30,264	30,313	30,390	30,426	30,417	30,471	30,436	30,378	30,240
55 years and over	8,758	8,767	8,805	8,741	8,748	8,738	8,715	8,731	8,605	8,639	8,618	8,609	8,589	8,691	8,599
FEMALE															
16 years and over	26,722	26,777	26,886	26,375	26,426	26,105	25,929	25,770	25,517	25,526	25,407	25,492	25,534	25,976	24,748
16 to 19 years	2,594	2,610	2,608	2,484	2,432	2,549	2,507	2,499	2,375	2,387	2,337	2,380	2,384	2,469	2,118
16 and 17 years	936	964	911	864	882	906	878	858	847	841	837	862	865	879	790
18 and 19 years	1,649	1,685	1,679	1,596	1,526	1,653	1,638	1,633	1,530	1,549	1,526	1,495	1,517	1,590	1,328
20 to 24 years	3,507	3,538	3,468	3,391	3,346	3,345	3,362	3,386	3,395	3,356	3,267	3,287	3,244	3,364	3,119
25 years and over	20,632	20,627	20,827	20,508	20,671	20,207	20,054	19,870	19,764	19,771	19,793	19,851	19,921	20,143	19,512
25 to 54 years	15,966	16,022	16,068	15,833	15,817	15,534	15,475	15,385	15,329	15,287	15,304	15,342	15,388	15,566	15,078
55 years and over	4,710	4,638	4,739	4,591	4,669	4,656	4,528	4,518	4,474	4,505	4,514	4,534	4,558	4,577	4,434

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TABLE A–5. Unemployed persons, by duration of unemployment, seasonally adjusted

[In thousands]

Duration of unemployment	1967	1966												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
Less than 5 weeks	1,542	1,562	1,397	1,493	1,523	1,576	1,592	1,653	1,604	1,536	1,494	1,450	1,481	1,535	1,628
5 to 14 weeks	787	760	789	900	831	891	882	816	854	667	796	738	764	804	983
15 weeks and over	485	496	484	517	493	462	446	486	538	590	583	594	639	536	755
15 to 26 weeks	282	269	287	293	291	254	228	263	262	333	316	327	340	245	404
27 weeks and over	203	227	197	224	202	208	218	223	276	257	267	267	299	241	351
15 weeks and over as a percent of civilian labor force	.6	.6	.6	.7	.6	.6	.6	.6	.7	.8	.8	.8	.8	.7	1.0

TABLE A–6. Full- and part-time status of the civilian labor force, not seasonally adjusted

[In thousands]

Full- and part-time employment status	January 1967	December 1966	November 1966	October 1966	Annual average	
					1966	1965
FULL TIME						
Civilian labor force	65,610	66,205	66,312	66,400	66,943	66,145
Employed:						
Full-time schedules [1]	60,953	62,285	62,713	62,878	62,734	61,144
Part time for economic reasons	2,195	1,875	1,632	1,638	1,894	2,209
Unemployed, looking for full-time work	2,462	2,045	1,967	1,884	2,315	2,792
Unemployment rate	3.8	3.1	3.0	2.8	3.5	4.2
PART TIME						
Civilian labor force	9,710	10,047	10,261	9,809	8,830	8,310
Employed (voluntary part time)[1]	9,013	9,439	9,650	9,228	8,270	7,735
Unemployed, looking for part-time work	697	608	611	581	560	575
Unemployment rate	7.2	6.1	6.0	5.9	6.3	6.9

[1] Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.

TABLE A–9. Employees in nonagricultural establishments, by industry [1]

[In thousands] **Revised series; see box, p. 87.**

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Total employees	64,316	65,910	65,389	65,190	64,867	64,484	64,274	64,563	63,465	62,928	62,243	61,622	61,439	60,770	58,332
Mining	617	627	628	631	637	649	645	645	630	590	620	617	621	632	634
Metal mining	-------	86.5	86.1	85.7	87.3	88.6	87.7	87.8	85.3	84.4	84.0	84.2	83.7	83.6	79.5
Iron ores	-------	26.0	26.0	26.0	26.4	26.4	25.8	26.4	25.7	24.6	24.0	24.3	24.3	25.7	24.6
Copper ores	-------	32.8	32.6	32.2	32.7	33.2	33.0	32.8	31.9	31.9	32.0	31.8	31.5	30.1	27.1
Coal mining	-------	143.3	142.9	143.7	142.7	142.5	139.5	142.2	140.7	104.3	141.3	142.2	142.5	141.8	147.3
Bituminous	-------	135.3	134.9	135.7	134.7	134.3	131.9	134.1	132.2	95.8	132.2	132.8	133.0	132.0	136.1
Crude petroleum and natural gas	-------	279.0	276.9	277.4	281.0	289.7	289.6	288.1	281.0	281.2	281.9	281.6	283.8	288.1	291.1
Crude petroleum and natural gas fields	-------	148.8	149.6	150.2	153.3	156.6	156.9	155.1	151.7	151.9	152.1	151.9	152.6	156.0	160.4
Oil and gas field services	-------	130.2	127.3	127.2	127.7	133.1	132.7	133.0	129.3	129.3	129.8	129.7	131.2	131.4	130.7
Quarrying and nonmetallic mining	-------	117.9	121.7	123.9	126.2	127.8	127.8	126.9	122.5	119.9	112.4	108.8	111.3	118.3	116.2
Crushed and broken stone	-------	41.0	42.0	42.8	43.8	44.4	44.3	43.8	42.3	41.2	37.6	35.7	37.6	41.0	40.5
Sand and gravel	-------	37.1	39.8	41.2	41.9	42.5	42.4	42.2	40.5	39.3	35.8	34.3	35.1	39.4	39.3
Contract construction	2,911	3,122	3,310	3,449	3,525	3,641	3,623	3,521	3,277	3,156	2,981	2,818	2,940	3,181	3,050
General building contractors	-------	1,036.0	1,078.0	1,107.3	1,125.2	1,165.3	1,153.3	1,121.1	1,037.1	1,014.6	967.7	915.4	961.7	997.6	949.1
Heavy construction	-------	571.3	673.9	740.6	758.8	781.5	782.2	756.8	680.1	618.0	521.1	474.8	507.6	643.2	613.9
Highway and street construction	-------	257.4	335.5	386.9	401.1	411.9	411.7	397.8	345.3	296.4	224.3	199.8	220.0	323.6	313.7
Other heavy construction	-------	313.9	338.4	353.7	357.7	369.6	370.5	359.0	334.8	321.6	296.8	275.0	287.6	319.6	300.3
Special trade contractors	-------	1,514.2	1,558.1	1,601.3	1,641.0	1,694.0	1,687.8	1,643.1	1,559.4	1,523.7	1,492.2	1,428.2	1,470.8	1,540.6	1,487.0
Plumbing, heating, and air conditioning	-------	368.7	374.8	377.8	380.3	383.6	384.6	376.7	366.3	363.8	360.6	353.6	363.0	365.5	354.3
Painting, paperhanging, and decorating	-------	125.5	134.9	147.1	153.0	161.0	157.7	148.5	137.3	130.3	124.0	118.6	119.7	142.3	140.4
Electrical work	-------	247.6	249.4	249.8	255.0	259.7	255.2	248.5	238.6	235.6	231.1	227.6	229.5	231.8	218.7
Masonry, plastering, stone, and tile work	-------	206.7	215.7	228.9	238.2	255.7	253.4	248.9	236.6	231.0	230.6	209.2	210.0	237.6	241.1
Roofing and sheet metal work	-------	112.3	116.5	117.7	117.1	118.7	117.8	115.1	107.6	106.8	104.4	97.2	104.9	110.0	107.5
Manufacturing	19,246	19,429	19,522	19,538	19,533	19,391	19,123	19,258	18,906	18,774	18,651	18,518	18,333	18,032	17,274
Durable goods	11,367	11,446	11,480	11,470	11,434	11,249	11,213	11,319	11,130	11,039	10,921	10,822	10,707	10,386	9,816
Nondurable goods	7,879	7,983	8,042	8,068	8,099	8,142	7,910	7,939	7,776	7,735	7,730	7,696	7,626	7,645	7,458
Durable goods															
Ordnance and accessories	276.1	268.1	270.6	266.4	263.0	259.1	256.4	254.9	251.8	247.8	245.3	243.2	239.2	226.0	243.9
Ammunition, except for small arms	204.0	196.2	199.6	196.8	195.0	191.7	189.5	189.2	188.3	187.3	185.6	184.5	182.2	172.7	185.0
Sighting and fire control equipment	-------	15.0	14.8	14.8	14.7	14.7	14.6	14.1	13.7	13.5	13.3	13.1	12.8	12.4	14.2
Other ordnance and accessories	57.1	56.9	56.2	54.8	53.3	52.7	52.3	51.6	49.8	47.0	46.4	45.6	44.2	40.9	44.8
Lumber and wood products, except furniture	579.0	593.5	608.9	618.5	630.6	649.9	648.5	653.5	626.4	617.6	609.6	602.9	602.5	610.1	604.2
Logging camps and logging contractors	86.7	93.9	100.9	102.6	103.6	106.7	106.2	106.6	94.8	88.5	87.4	86.2	84.5	89.0	87.7
Sawmills and planing mills	231.6	235.5	240.7	244.4	250.5	257.4	256.5	259.0	251.3	251.3	248.8	244.6	247.1	250.8	253.1
Millwork, plywood, and related products	149.4	152.2	155.3	159.8	164.5	171.4	172.5	173.1	167.6	166.5	163.7	163.0	162.8	162.7	158.2
Wooden containers	35.7	35.3	35.0	35.0	35.1	36.5	36.1	36.9	36.3	35.4	34.4	34.2	34.2	34.4	34.8
Miscellaneous wood products	75.6	76.6	77.0	76.7	76.9	77.9	77.2	77.9	76.4	75.9	75.3	74.9	73.9	73.2	70.3
Furniture and fixtures	460.6	466.0	468.3	467.0	465.6	466.5	451.9	458.4	450.5	447.2	447.6	443.7	442.3	429.1	405.9
Household furniture	329.9	334.2	336.7	336.0	335.2	335.1	325.9	330.3	326.2	326.0	325.1	323.4	320.5	309.7	292.6
Office furniture	-------	35.1	34.8	34.2	33.8	33.7	33.5	32.2	32.2	29.9	31.5	31.3	31.1	29.6	28.0
Partitions; office and store fixtures	-------	47.3	47.3	47.0	47.3	48.6	46.5	47.2	45.1	44.8	44.5	42.9	44.6	43.2	40.3
Other furniture and fixtures	48.5	49.4	49.5	49.8	49.3	49.1	46.0	48.7	47.0	46.5	46.5	46.1	46.1	46.6	45.1
Stone, clay, and glass products	612.0	625.9	639.3	644.3	653.4	661.3	661.6	658.4	647.8	641.7	625.9	616.9	619.1	627.4	613.8
Flat glass	-------	32.8	32.8	32.4	32.2	32.3	32.4	32.9	33.1	33.2	32.9	32.9	33.2	32.3	30.8
Glass and glassware, pressed or blown	122.5	123.4	124.8	124.3	125.9	126.3	125.2	125.6	123.1	120.3	118.6	117.7	116.1	115.4	111.9
Cement, hydraulic	34.0	36.1	37.8	38.3	39.0	39.7	39.6	39.4	37.7	37.1	35.5	35.4	36.0	38.0	38.6
Structural clay products	63.6	64.9	66.6	67.9	69.5	71.5	72.7	72.5	71.1	69.8	67.7	67.2	68.3	69.2	69.3
Pottery and related products	-------	42.9	43.9	44.0	44.2	43.5	42.2	43.7	43.3	43.8	44.1	43.1	42.5	43.4	43.2
Concrete, gypsum, and plaster products	164.7	170.7	176.5	180.2	184.2	187.7	189.4	188.4	183.1	180.5	172.1	167.1	169.9	177.9	173.3
Other stone and mineral products	128.5	130.7	132.2	132.9	134.1	136.3	136.3	132.1	132.1	132.7	130.8	129.5	129.5	129.2	126.6
Primary metal industries	1,330.2	1,326.1	1,328.6	1,332.2	1,344.9	1,351.8	1,353.4	1,355.7	1,329.6	1,321.7	1,303.4	1,291.4	1,277.0	1,295.6	1,233.2
Blast furnace and basic steel products	641.9	638.3	643.3	649.4	659.7	669.8	676.9	673.4	656.4	649.1	634.9	623.6	615.6	656.8	629.2
Iron and steel foundries	239.5	236.7	236.7	236.4	236.6	237.8	236.7	239.1	235.8	235.9	233.6	234.2	232.7	226.2	212.3
Nonferrous smelting and refining	79.9	79.6	78.8	77.9	78.5	78.6	79.2	78.6	76.8	76.2	75.7	75.9	75.5	73.8	69.7
Nonferrous rolling, drawing, and extruding	210.1	211.2	211.3	211.4	212.0	209.2	206.5	207.0	205.9	205.8	205.2	204.0	201.6	194.4	186.0
Nonferrous foundries	88.0	88.9	87.8	87.4	88.5	87.9	85.7	88.0	86.3	86.3	85.6	85.6	84.0	80.5	75.2
Miscellaneous primary metal industries	70.8	71.4	70.7	69.7	69.6	68.5	68.4	69.6	68.4	68.4	68.4	68.1	67.6	64.0	60.8
Fabricated metal products	1,369.5	1,383.1	1,387.5	1,379.7	1,372.5	1,360.9	1,339.2	1,360.8	1,340.7	1,337.0	1,326.8	1,319.5	1,310.5	1,268.3	1,189.2
Metal cans	61.4	61.6	61.8	62.0	64.0	65.9	66.0	65.2	63.5	62.1	61.4	60.7	59.7	60.4	62.1
Cutlery, hand tools, and general hardware	164.8	165.6	166.5	165.7	164.4	160.3	155.3	161.2	160.7	163.4	163.3	161.5	161.0	155.3	144.0
Heating equipment and plumbing fixtures	76.8	78.6	79.3	79.6	79.9	80.1	78.1	79.9	80.2	79.4	80.1	79.9	79.0	78.7	80.2
Fabricated structural metal products	395.3	401.7	404.5	405.5	408.9	411.2	410.7	406.6	394.4	390.4	385.1	384.6	384.8	375.5	354.1
Screw machine products, bolts, etc	114.7	114.2	112.7	110.8	109.3	108.1	107.2	108.0	105.9	105.6	105.0	103.5	102.5	97.8	90.4
Metal stampings	249.6	251.4	252.1	249.0	241.9	231.1	221.5	234.5	235.9	236.8	237.0	235.8	234.4	221.3	198.6
Coating, engraving, and allied services	81.5	83.7	85.0	84.8	83.7	84.0	81.6	84.9	82.2	81.9	82.3	81.6	79.5	76.7	71.4
Miscellaneous fabricated wire products	70.2	69.9	69.8	68.7	67.9	68.0	67.9	67.5	66.0	66.0	65.9	65.1	64.8	62.3	57.7
Miscellaneous fabricated metal products	155.2	156.4	155.8	153.6	152.5	152.2	150.9	153.0	151.9	151.4	146.7	146.8	144.8	140.3	130.7

See footnotes at end of table.

TABLE A–9. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands] **Revised series; see box, p. 87.**

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Durable goods—Continued															
Machinery	1,936.9	1,927.1	1,899.9	1,897.1	1,895.3	1,891.1	1,887.5	1,882.0	1,855.2	1,841.7	1,828.8	1,813.2	1,793.5	1,725.8	1,609.6
Engines and turbines	101.0	94.6	88.4	98.6	99.7	99.1	98.4	94.7	96.3	95.2	94.5	93.7	93.2	90.1	87.0
Farm machinery and equipment	-------	150.1	145.6	143.8	143.9	143.9	145.2	148.2	147.5	147.9	147.9	145.9	142.1	135.2	126.5
Construction and related machinery	278.4	278.7	277.3	277.5	279.2	279.2	281.4	279.2	274.2	270.8	268.7	265.4	261.2	255.3	236.3
Metalworking machinery and equipment	344.9	344.0	340.0	337.4	338.8	334.5	334.8	335.1	329.2	327.8	324.8	323.1	317.4	304.5	282.9
Special industry machinery	203.7	204.9	203.9	203.7	204.0	203.3	203.0	202.9	199.5	198.1	199.1	198.1	198.2	192.1	181.2
General industrial machinery	288.1	286.8	284.5	282.3	281.0	280.8	280.5	279.6	275.0	273.1	272.7	270.8	268.8	259.0	243.4
Office, computing, and accounting machines	227.2	225.9	223.7	220.7	218.6	217.3	214.8	213.1	210.2	208.4	206.1	203.7	202.6	189.5	172.8
Service industry machines	119.0	119.3	117.0	115.8	115.6	118.7	117.0	118.0	116.4	115.0	111.9	112.3	112.3	112.7	106.4
Miscellaneous machinery	223.5	222.8	219.5	217.3	214.5	214.3	212.4	211.2	206.9	205.4	203.1	200.2	197.7	187.5	173.1
Electrical equipment and supplies	1,972.4	1,980.2	1,980.9	1,981.5	1,958.0	1,939.6	1,887.8	1,898.4	1,858.1	1,842.8	1,810.8	1,800.0	1,778.2	1,658.1	1,544.3
Electric distribution equipment	197.0	197.9	197.2	198.9	198.0	198.2	195.0	193.4	187.1	185.6	184.1	181.9	181.1	170.5	161.8
Electrical industrial apparatus	225.6	220.9	216.9	220.6	218.7	219.8	216.6	215.8	206.9	208.8	206.6	204.0	202.1	191.9	177.8
Household appliances	185.2	189.9	190.1	192.9	187.5	184.1	173.4	181.6	184.1	181.7	168.6	178.1	173.1	166.6	160.9
Electric lighting and wiring equipment	193.4	194.8	193.6	195.4	194.7	192.8	190.1	193.4	190.6	188.7	186.5	184.5	181.9	172.3	158.0
Radio and TV receiving sets	194.5	193.6	195.4	191.5	185.1	177.1	163.4	162.9	154.6	153.2	152.3	152.1	152.3	135.1	118.8
Communication equipment	476.7	477.4	485.5	480.9	478.3	476.6	468.4	465.8	458.3	454.2	449.2	443.6	440.4	416.8	408.6
Electronic components and accessories	388.4	391.6	388.9	389.1	384.9	384.4	376.4	379.8	371.1	366.6	360.5	354.3	345.8	304.9	264.8
Miscellaneous electrical equipment and supplies	111.6	114.1	113.3	112.2	110.8	106.6	104.5	105.7	105.4	104.0	103.0	101.5	101.5	100.1	93.6
Transportation equipment	1,972.0	1,994.5	1,989.2	1,974.4	1,953.2	1,777.9	1,865.3	1,921.1	1,910.2	1,894.7	1,886.6	1,867.4	1,839.1	1,737.9	1,604.3
Motor vehicles and equipment	870.3	891.5	898.1	891.4	881.9	712.1	807.7	881.2	884.3	877.8	881.2	877.2	868.3	843.4	752.9
Aircraft and parts	819.9	818.7	808.6	794.6	786.8	776.2	767.2	748.6	735.6	726.6	715.5	702.8	688.8	625.2	605.4
Ship and boat building and repairing	172.9	171.3	165.7	170.8	166.7	171.3	173.1	170.9	171.9	173.2	177.1	176.5	173.0	158.8	145.1
Railroad equipment	-------	61.6	61.6	60.8	61.0	60.3	59.1	60.0	59.7	59.2	58.0	57.3	57.6	55.7	50.2
Other transportation equipment	-------	51.4	55.2	56.8	56.8	58.0	58.2	60.4	58.7	57.9	54.8	53.6	51.4	54.9	50.7
Instruments and related products	445.7	445.1	440.9	439.5	434.6	434.0	429.3	428.8	421.4	416.0	413.6	409.5	404.6	386.8	369.9
Engineering and scientific instruments	-------	76.7	76.0	75.2	73.8	74.1	73.4	73.0	73.1	71.9	72.4	72.1	71.4	69.8	69.8
Mechanical measuring and control devices	108.2	107.8	107.8	107.6	107.4	107.3	107.1	106.6	103.9	103.3	102.1	101.3	100.4	98.4	96.0
Optical and ophthalmic goods	51.2	50.6	50.7	50.0	49.6	49.1	47.6	48.6	48.8	48.7	48.2	47.9	47.1	45.4	43.3
Ophthalmic goods	-------	33.8	34.1	33.6	33.3	33.3	32.5	33.4	33.4	33.5	33.1	33.0	32.2	31.0	29.3
Surgical, medical, and dental equipment	67.9	68.2	67.5	66.9	66.2	65.4	65.4	65.1	63.8	63.1	62.4	61.5	60.5	57.2	54.4
Photographic equipment and supplies	-------	101.9	101.4	100.8	99.1	100.2	99.0	97.9	95.2	93.8	92.6	91.5	90.1	84.1	76.7
Watches and clocks	-------	39.9	37.5	39.0	38.5	37.9	36.8	37.6	36.6	35.2	35.9	35.2	35.1	31.9	29.6
Miscellaneous manufacturing industries	412.8	436.8	466.3	469.8	463.2	456.6	431.9	447.2	438.5	430.9	422.9	414.7	401.3	421.2	397.6
Jewelry, silverware, and plated ware	50.7	50.7	50.7	50.1	48.9	48.7	45.3	48.6	48.4	48.5	47.9	47.4	45.8	45.5	43.7
Toys, amusement, and sporting goods	-------	113.2	138.0	141.4	138.6	132.2	121.5	125.7	121.3	114.9	109.1	104.4	99.2	118.0	105.2
Pens, pencils, office and art materials	-------	36.3	36.4	36.4	36.4	36.5	36.1	36.2	35.5	35.4	35.3	34.6	33.1	33.6	31.9
Costume jewelry, buttons, and notions	-------	57.7	59.6	59.7	58.7	59.6	54.8	58.6	57.5	57.0	56.8	56.1	53.4	56.0	55.5
Other manufacturing industries	176.5	178.9	181.6	182.2	180.6	179.6	174.2	178.1	175.8	175.1	173.8	172.2	169.8	168.1	161.4
Musical instruments and parts	-------	27.9	27.8	27.8	27.4	27.2	26.8	26.6	26.6	26.5	26.7	26.3	26.2	24.6	21.9
Nondurable goods															
Food and kindred products	1,713.0	1,760.5	1,801.9	1,838.0	1,881.0	1,897.1	1,806.8	1,751.4	1,683.5	1,676.0	1,674.7	1,671.8	1,686.2	1,752.0	1,750.4
Meat products	321.9	330.2	330.9	330.0	327.9	329.7	326.8	319.9	311.3	307.3	307.6	309.3	310.4	317.3	316.2
Dairy products	270.2	271.2	272.2	275.2	279.8	289.0	291.1	288.1	279.8	278.1	275.9	275.1	275.7	286.3	289.1
Canned and preserved food, except meats	-------	254.8	285.2	323.9	380.5	381.9	304.9	256.1	227.4	230.4	223.6	224.8	226.9	260.6	253.7
Grain mill products	121.2	122.8	121.7	124.4	125.5	127.1	128.0	127.0	122.5	120.9	122.1	122.0	121.6	125.6	127.8
Bakery products	282.1	284.0	285.2	282.3	281.9	285.3	275.5	285.2	279.1	278.9	280.1	278.7	279.9	286.4	290.8
Sugar	-------	45.1	52.0	49.2	33.8	30.6	30.4	30.0	30.6	30.9	32.0	33.6	41.5	36.3	37.7
Confectionery and related products	76.4	84.5	84.0	80.2	77.8	75.5	69.5	71.2	70.0	69.6	75.3	75.2	75.3	76.5	77.1
Beverages	220.9	226.3	228.3	230.8	233.6	238.7	241.2	234.8	225.1	221.7	218.0	212.4	213.3	220.9	216.4
Miscellaneous food and kindred products	138.8	141.6	142.4	142.0	140.2	139.3	139.4	139.1	137.7	138.2	140.1	140.7	141.6	142.1	141.6
Tobacco manufactures	87.6	91.0	91.5	94.8	94.8	88.2	73.8	74.8	73.8	75.6	78.3	82.1	84.6	86.6	90.2
Cigarettes	-------	39.8	39.7	39.5	39.8	40.0	39.7	39.4	38.7	38.6	38.3	38.1	37.7	38.6	37.6
Cigars	-------	22.1	22.3	22.4	22.2	22.0	21.0	22.7	22.7	22.6	22.5	22.8	22.5	24.3	25.6
Textile mill products	937.9	948.3	955.3	958.1	959.7	965.4	947.5	964.9	951.8	947.6	943.4	936.6	929.7	921.3	892.0
Cotton broad woven fabrics	239.6	240.6	240.1	238.9	238.3	238.5	238.3	239.3	235.8	235.0	234.7	234.2	233.8	229.2	226.7
Silk and synthetic broad woven fabrics	94.8	95.8	95.7	95.8	96.2	96.7	95.9	96.2	94.9	94.8	94.8	94.2	93.9	91.9	90.5
Weaving and finishing broad woolens	42.6	42.2	42.0	42.6	43.8	45.0	45.4	45.5	45.2	44.8	44.9	44.5	44.1	44.2	45.0
Narrow fabrics and smallwares	32.5	32.8	32.6	32.3	32.0	31.8	30.6	31.8	31.4	31.3	31.0	30.8	30.3	29.4	27.8
Knitting	219.5	226.0	233.8	237.6	238.8	241.7	234.1	241.8	238.1	235.8	231.8	227.3	222.9	228.9	214.8
Finishing textiles, except wool and knit	75.8	76.7	76.5	75.8	75.9	76.4	75.9	77.0	76.2	75.9	75.5	75.1	74.9	75.9	76.1
Floor covering	-------	43.4	43.4	43.5	43.1	42.6	39.8	41.3	41.4	41.4	41.5	41.9	42.0	40.9	38.6
Yarn and thread	115.2	115.4	115.5	116.1	116.5	117.9	114.4	116.7	114.6	113.8	113.8	113.4	113.2	109.0	104.6
Miscellaneous textile goods	75.4	75.4	75.7	75.5	75.1	74.8	73.1	75.3	74.2	74.8	75.4	75.2	74.6	71.9	67.9

See footnotes at end of table.

TABLE A–9. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands] **Revised series; see box, p. 87.**

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Nondurable goods—Continued															
Apparel and related products	1,386.3	1,401.0	1,418.9	1,420.7	1,414.2	1,422.2	1,353.1	1,414.4	1,396.9	1,380.4	1,401.0	1,391.3	1,331.8	1,353.6	1,302.5
Men's and boys' suits and coats	120.2	122.0	120.6	120.0	120.7	120.7	115.3	123.5	122.4	120.4	121.1	120.7	119.6	118.6	114.7
Men's and boys' furnishings	362.8	365.1	367.5	369.2	370.4	373.1	360.5	373.2	368.4	365.4	364.4	360.9	357.0	350.7	327.4
Women's, misses', and juniors' outerwear	425.6	425.3	430.2	430.6	428.9	434.6	412.9	431.0	428.3	419.8	435.7	435.8	402.9	418.8	406.3
Women's and children's undergarments	125.7	129.4	132.1	131.7	130.0	128.8	120.4	126.9	124.9	124.8	124.6	123.1	118.2	121.0	120.3
Hats, caps, and millinery	-------	28.0	27.2	28.2	28.4	29.2	27.0	27.2	24.9	26.1	30.7	30.9	27.7	29.0	29.7
Girls' and children's outerwear	80.2	78.4	80.4	80.4	80.3	82.3	81.5	83.6	80.5	78.1	80.9	81.1	76.8	78.4	77.6
Fur goods and miscellaneous apparel	-------	79.0	82.6	83.7	82.0	82.4	76.8	79.8	77.9	77.9	76.8	75.0	69.8	76.0	72.4
Miscellaneous fabricated textile products	168.5	173.8	178.3	176.9	173.5	171.1	158.7	169.2	169.6	167.9	166.8	163.8	159.8	161.2	154.1
Paper and allied products	679.1	685.0	684.6	679.5	677.1	683.8	678.2	679.0	661.4	659.4	655.6	653.3	651.7	640.0	625.5
Paper and pulp	219.2	220.7	220.0	218.9	219.7	223.5	225.1	223.2	216.8	215.7	214.6	213.8	213.6	213.0	213.1
Paperboard	71.8	71.0	70.3	69.5	69.7	70.3	69.5	69.4	68.4	68.0	68.5	68.6	68.3	67.3	66.6
Converted paper and paperboard products	173.2	175.8	176.0	175.0	173.7	175.3	171.4	172.3	167.0	167.6	165.8	164.8	163.8	159.3	152.5
Paperboard containers and boxes	214.9	217.5	218.3	216.1	214.0	214.7	212.2	214.1	209.2	208.1	206.7	206.1	206.0	200.4	193.3
Printing, publishing and allied industries	1,048.0	1,056.1	1,047.9	1,044.0	1,038.2	1,035.1	1,030.4	1,026.8	1,015.3	1,014.6	1,005.8	1,004.3	997.7	981.0	951.5
Newspaper publishing and printing	357.4	361.7	359.5	358.4	356.8	353.3	354.1	353.7	350.7	352.3	346.7	350.5	348.9	345.6	335.7
Periodical publishing and printing	-------	74.6	74.2	74.0	73.5	73.9	73.3	72.6	72.2	71.9	72.0	71.9	71.3	70.1	68.6
Books	-------	92.9	90.1	89.8	89.1	90.8	89.9	88.8	87.4	87.1	86.5	85.1	83.7	81.1	77.0
Commercial printing	335.6	335.7	333.3	332.6	330.5	327.3	325.5	326.7	323.9	322.5	321.6	317.9	316.9	310.5	302.4
Bookbinding and related industries	54.6	56.3	56.2	55.9	56.5	57.9	56.5	55.5	53.5	53.6	53.3	52.3	51.6	51.2	49.0
Other publishing and printing industries	132.5	134.9	134.6	133.3	131.8	131.9	131.1	129.5	127.6	127.2	125.7	126.6	125.3	122.6	118.7
Chemicals and allied products	966.3	968.5	968.0	965.4	968.2	976.9	970.3	964.5	948.6	944.0	935.5	924.3	918.0	906.4	878.6
Industrial chemicals	304.3	304.1	303.6	301.2	304.5	307.2	305.5	302.8	296.7	296.1	294.6	293.1	291.5	289.7	288.4
Plastics materials and synthetics	207.6	209.7	209.9	209.8	212.2	215.1	214.1	210.8	205.8	205.2	204.6	202.8	201.7	194.5	181.7
Drugs	130.2	130.6	129.8	128.9	128.5	130.8	130.1	127.5	124.6	123.8	123.7	122.9	122.2	118.1	112.9
Soap, cleaners, and toilet goods	107.3	109.9	111.0	112.2	111.5	111.2	109.0	109.5	107.1	102.7	101.7	103.5	104.0	105.0	101.5
Paints, varnishes, and allied products	66.2	66.0	66.5	66.6	67.2	68.9	68.6	68.2	66.7	66.0	65.7	65.1	64.6	66.0	64.2
Agricultural chemicals	54.3	52.8	52.2	52.5	50.7	50.7	50.6	55.1	60.3	64.1	60.0	54.3	52.2	53.2	51.4
Other chemical products	96.4	95.4	95.0	94.2	93.6	93.0	92.4	90.6	87.4	86.1	85.2	82.6	81.8	80.0	78.5
Petroleum refining and related industries	177.8	180.1	182.0	182.8	185.4	188.2	190.1	186.4	182.9	180.6	178.7	178.0	177.9	182.0	183.9
Petroleum refining	145.9	146.5	146.8	146.9	148.1	149.8	151.6	148.5	146.6	145.8	145.5	145.3	145.1	147.5	149.6
Other petroleum and coal products	31.9	33.6	35.2	35.9	37.3	38.4	38.5	37.9	36.3	34.8	33.2	32.7	32.8	34.5	34.2
Rubber and miscellaneous plastic products	531.4	536.8	534.7	529.3	523.2	520.5	509.6	514.2	505.4	502.0	497.7	493.9	493.4	471.5	436.0
Tires and inner tubes	109.2	110.1	110.2	109.2	108.8	109.3	109.1	107.9	106.6	105.1	104.8	104.4	105.6	101.8	99.0
Other rubber products	187.9	188.0	185.2	183.5	182.7	180.9	177.9	180.9	179.7	177.9	178.1	177.9	178.4	172.4	164.0
Miscellaneous plastic products	234.3	238.7	239.3	236.6	231.7	230.3	222.6	225.4	219.1	219.0	214.8	211.6	209.4	197.4	172.9
Leather and leather products	351.3	355.6	357.2	355.1	356.9	364.8	350.3	362.2	356.4	354.9	358.8	360.0	354.7	350.9	347.6
Leather tanning and finishing	30.6	31.4	31.0	30.8	31.2	31.9	31.2	31.8	31.5	31.6	31.9	32.1	32.3	31.6	31.4
Footwear, except rubber	235.3	235.4	234.9	233.3	235.7	242.0	234.6	240.7	237.0	235.4	238.8	240.4	237.7	233.4	230.5
Other leather products	85.4	88.8	91.3	91.0	90.0	90.9	84.5	89.7	87.9	87.9	88.1	87.5	84.7	85.9	85.7
Handbags and personal leather goods	-------	36.1	37.8	37.7	36.7	37.0	33.3	36.0	34.6	35.0	36.4	35.9	34.0	35.4	37.2
Transportation and public utilities	4,155	4,199	4,208	4,198	4,218	4,154	4,171	4,180	4,115	4,077	4,056	4,035	4,026	4,033	3,951
Railroad transportation	-------	716.2	712.3	715.6	720.6	728.3	730.4	727.6	715.3	711.9	708.3	708.2	715.3	734.8	756.1
Class I railroads [3]	-------	619.5	620.5	623.7	628.4	636.2	638.4	635.2	623.6	619.6	615.3	614.6	623.7	640.1	665.0
Local and interurban passenger transit	-------	270.5	268.0	267.5	264.3	246.3	246.8	255.0	267.5	269.3	272.8	273.3	274.0	267.5	266.9
Local and suburban transportation	-------	80.9	80.5	81.4	81.0	79.6	79.9	79.9	80.4	80.8	81.5	81.4	81.5	82.1	83.4
Taxicabs	-------	109.5	107.3	105.8	104.5	104.0	104.5	105.6	105.4	108.8	110.9	112.0	111.7	109.1	109.5
Intercity and rural bus lines	-------	42.6	42.5	43.0	43.9	44.7	44.1	39.5	42.3	41.7	41.1	41.0	41.8	42.0	42.1
Motor freight transportation and storage	-------	1,030.7	1,045.4	1,045.5	1,045.7	1,030.8	1,030.7	1,025.5	989.9	973.8	969.8	960.7	953.0	963.2	919.1
Public warehousing	-------	87.8	91.3	88.9	82.8	81.5	79.5	79.8	77.1	75.8	78.0	77.6	78.7	80.5	82.2
Air transportation	-------	268.0	266.1	264.5	261.6	201.7	215.6	259.9	254.2	250.8	246.6	245.3	241.2	229.7	212.6
Air transportation, common carriers	-------	239.1	237.4	236.2	233.6	174.1	187.7	232.1	227.0	223.8	220.0	219.1	214.9	205.8	190.7
Pipeline transportation	-------	18.3	18.4	18.5	18.9	19.4	19.4	19.3	18.7	18.6	18.7	18.7	18.9	19.5	20.0
Other transportation	-------	320.5	322.6	315.5	326.7	325.5	330.9	320.4	329.9	319.3	315.2	311.5	309.8	312.7	313.6
Communication	-------	943.0	942.8	937.3	938.8	949.0	944.9	928.7	911.4	906.6	899.4	893.7	889.5	880.4	847.9
Telephone communication	-------	790.3	790.4	784.9	786.5	796.3	792.2	777.7	761.6	757.7	751.4	746.3	743.0	735.2	706.1
Telegraph communication	-------	33.6	33.3	33.2	33.1	33.5	33.6	33.2	33.2	32.7	32.6	32.4	31.8	31.8	32.6
Radio and television broadcasting	-------	112.8	112.8	112.9	112.9	112.9	112.8	111.5	110.3	109.9	109.1	108.7	108.4	107.1	102.9
Electric, gas, and sanitary services	-------	631.7	632.0	633.2	641.4	652.7	652.4	643.6	627.7	627.1	624.7	623.2	624.7	625.3	614.7
Electric companies and systems	-------	257.3	257.4	257.6	260.3	264.6	263.9	261.0	254.8	254.6	253.4	252.7	253.0	253.4	248.9
Gas companies and systems	-------	156.0	155.9	156.1	158.6	161.7	162.0	159.6	154.6	154.9	154.8	154.5	154.8	155.0	153.3
Combined utility systems	-------	176.8	176.9	177.1	179.7	182.8	182.8	180.1	176.2	175.8	175.4	175.2	175.8	176.5	174.1
Water, steam, and sanitary systems	-------	41.6	41.8	42.4	42.8	43.6	43.7	42.9	42.1	41.8	41.1	40.8	41.1	40.5	38.4

See footnotes at end of table.

TABLE A–9. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands] **Revised series; see box, p. 87.**

Industry	1967	1966											Annual average	
	Jan.,[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Wholesale and retail trade	**13,351**	**14,254**	**13,599**	**13,285**	**13,253**	**13,224**	**13,225**	**13,239**	**13,061**	**13,015**	**12,826**	**12,738**	**12,835**	**12,683**	**12,160**
Wholesale trade	3,510	3,557	3,533	3,521	3,498	3,521	3,511	3,473	3,400	3,386	3,374	3,367	3,371	3,317	3,189
Motor vehicles and automotive equipment		267.0	266.1	263.2	263.9	277.5	266.5	264.6	261.7	260.7	260.1	259.1	260.0	256.0	245.9
Drugs, chemicals, and allied products		211.9	212.2	210.5	208.9	210.6	209.0	207.8	204.2	203.2	202.8	201.9	201.6	198.2	192.0
Dry goods and apparel		151.5	152.7	151.2	150.5	150.1	148.6	148.3	146.2	145.4	145.8	144.8	142.5	141.0	134.6
Groceries and related products		524.6	523.8	529.5	515.1	517.4	532.1	530.2	506.4	499.0	498.4	497.3	509.1	509.2	497.7
Electrical goods		284.5	281.8	279.1	279.0	284.0	282.4	276.0	272.0	271.0	268.7	267.0	263.8	257.1	242.7
Hardware, plumbing, and heating goods		158.7	158.9	159.4	158.4	160.1	159.3	158.2	155.8	155.6	155.1	155.0	154.2	151.0	146.0
Machinery, equipment, and supplies		639.8	636.3	633.3	632.7	637.8	635.5	625.5	614.2	611.8	606.0	600.8	596.8	579.3	548.4
Miscellaneous wholesalers		1,205.4	1,198.6	1,192.8	1,187.9	1,194.5	1,188.1	1,174.9	1,154.2	1,152.4	1,147.8	1,145.0	1,139.9	1,124.8	1,078.5
Retail trade	9,841	10,697	10,066	9,864	9,755	9,703	9,714	9,766	9,661	9,629	9,452	9,371	9,464	9,366	8,971
General merchandise stores		2,555.9	2,160.8	2,009.0	1,938.9	1,892.3	1,885.5	1,907.2	1,890.9	1,888.0	1,846.5	1,825.0	1,916.1	1,875.1	1,763.1
Department stores		1,655.7	1,373.3	1,267.8	1,215.1	1,185.6	1,185.1	1,201.8	1,189.7	1,183.6	1,159.1	1,144.9	1,207.1	1,171.3	1,087.8
Mail order houses		153.8	146.0	129.9	119.8	116.1	114.5	114.0	112.5	114.2	115.8	118.2	129.9	119.3	108.3
Limited price variety stores		417.4	350.9	330.4	322.1	307.6	304.2	309.7	313.8	317.6	308.1	299.9	312.9	314.0	309.2
Food stores		1,612.6	1,585.2	1,577.0	1,555.5	1,542.2	1,548.9	1,549.8	1,543.7	1,534.9	1,535.0	1,528.5	1,519.5	1,473.5	1,419.4
Grocery, meat, and vegetable stores		1,424.4	1,404.7	1,398.6	1,378.5	1,368.4	1,374.9	1,372.6	1,366.6	1,356.6	1,359.6	1,352.1	1,347.8	1,299.6	1,250.1
Apparel and accessories stores		800.1	688.1	665.8	654.6	632.7	632.6	652.0	644.9	661.7	624.9	615.6	636.8	638.1	616.4
Men's and boys' apparel stores		143.5	114.7	110.3	108.3	106.3	106.7	109.3	106.0	106.5	103.9	107.0	111.9	105.0	99.8
Women's ready-to-wear stores		284.2	249.4	244.0	236.4	234.0	230.8	238.0	238.0	237.5	230.2	225.7	233.3	235.6	229.9
Family clothing stores		137.9	109.4	103.5	102.6	97.9	100.4	102.2	98.3	98.4	96.6	96.4	100.3	102.4	102.6
Shoe stores		148.1	133.7	129.8	131.3	123.3	124.1	127.8	127.9	143.6	121.1	116.4	120.5	123.9	117.5
Furniture and appliance stores		448.3	438.0	431.6	427.1	426.7	426.4	425.3	421.2	420.4	420.7	420.0	420.3	411.2	394.5
Furniture and home furnishings		285.8	280.2	275.2	273.3	272.8	274.7	274.3	270.4	269.5	268.9	268.5	269.3	265.4	255.0
Eating and drinking places		2,027.0	2,032.1	2,046.7	2,055.8	2,067.8	2,069.5	2,074.4	2,034.9	2,001.6	1,949.4	1,919.4	1,904.6	1,938.7	1,848.1
Other retail trade		3,253.5	3,161.8	3,133.6	3,122.7	3,141.0	3,151.5	3,157.5	3,125.1	3,122.0	3,075.1	3,062.6	3,066.9	3,029.5	2,929.4
Building materials and hardware		535.2	537.6	544.5	549.6	563.0	568.5	568.8	553.5	550.4	538.3	529.0	533.9	541.8	533.0
Auto dealers and service stations		1,497.2	1,488.1	1,477.5	1,477.6	1,485.4	1,490.6	1,479.6	1,463.0	1,454.3	1,445.0	1,442.4	1,446.6	1,425.5	1,366.8
Motor vehicle dealers		753.9	752.5	747.3	745.3	747.5	751.5	749.3	745.1	746.4	746.6	744.4	743.4	726.1	692.5
Other vehicle and accessory dealers		200.1	195.0	191.9	191.7	194.7	193.5	191.1	187.4	183.9	178.2	176.5	179.9	178.3	167.2
Gasoline service stations		543.2	540.6	538.3	540.6	543.2	545.6	539.2	530.5	524.0	520.2	521.5	523.3	521.1	507.2
Miscellaneous retail stores		1,221.1	1,136.1	1,111.6	1,095.5	1,092.6	1,092.4	1,109.1	1,108.6	1,117.3	1,091.8	1,091.2	1,086.4	1,062.2	1,029.6
Drug stores		464.4	430.4	425.6	418.4	415.1	414.3	416.5	413.1	413.9	410.0	409.6	411.8	401.0	387.8
Farm and garden supply stores		102.2	101.7	102.5	100.5	100.7	101.1	106.5	111.3	113.9	106.8	101.0	97.6	97.4	94.6
Fuel and ice dealers		116.6	113.5	109.7	104.3	102.9	102.9	104.0	105.6	109.2	114.2	118.1	119.2	108.9	108.5
Finance, insurance, and real estate	**3,094**	**3,104**	**3,098**	**3,099**	**3,109**	**3,146**	**3,148**	**3,112**	**3,070**	**3,056**	**3,043**	**3,024**	**3,018**	**3,019**	**2,957**
Banking		835.4	832.3	830.1	830.6	839.2	835.4	821.6	807.7	806.5	803.8	800.3	798.1	790.9	766.5
Credit agencies other than banks		334.8	333.2	333.0	333.6	337.5	337.3	334.4	332.5	332.6	333.1	331.7	333.0	326.8	314.8
Savings and loan associations		93.8	93.5	94.2	93.8	95.8	96.9	95.8	96.0	97.2	97.2	97.3	98.2	97.1	94.5
Personal credit institutions		183.3	182.2	181.2	181.9	182.9	181.3	180.0	178.1	177.4	177.5	176.0	176.5	171.8	164.3
Security dealers and exchanges		141.2	141.2	14.16	141.7	144.0	144.7	142.3	139.4	138.1	136.9	134.0	131.2	128.9	125.8
Insurance carriers		912.9	909.1	907.3	908.3	915.1	911.2	899.4	891.4	890.9	890.1	889.1	888.2	890.8	889.5
Life insurance		480.1	479.2	479.6	480.8	484.0	482.5	476.1	474.1	475.3	474.9	475.8	476.6	478.7	474.6
Accident and health insurance		67.1	66.0	65.0	63.7	64.0	62.7	60.4	58.2	57.2	56.8	55.8	55.3	54.5	55.2
Fire, marine, and casualty insurance		327.6	325.8	324.0	324.7	327.1	325.2	322.0	318.3	317.7	317.5	316.4	315.1	315.7	316.2
Insurance agents, brokers, and services		243.6	242.2	240.7	241.4	244.2	243.7	242.2	239.2	238.6	237.6	235.8	234.2	233.1	225.6
Real estate		554.7	558.0	565.1	571.6	583.4	593.4	590.2	577.9	568.2	560.5	552.1	553.6	569.0	556.4
Operative builders		35.6	36.7	39.1	40.1	43.2	44.2	45.5	45.8	45.9	45.0	43.2	43.5	46.9	46.2
Other finance, insurance, and real estate		81.6	81.7	81.5	81.9	82.6	82.5	81.7	81.6	81.3	81.1	80.5	80.1	79.7	78.9
Services and miscellaneous	**9,661**	**9,731**	**9,739**	**9,751**	**9,707**	**9,772**	**9,782**	**9,702**	**9,572**	**9,465**	**9,331**	**9,250**	**9,176**	**9,098**	**8,709**
Hotels and lodging places		610.2	620.8	645.1	687.9	789.5	789.5	702.7	661.7	640.4	617.7	613.7	602.1	653.8	636.2
Hotels, tourist courts, and motels		552.9	562.4	583.0	612.2	650.9	653.1	624.4	594.9	579.4	561.5	558.4	546.9	578.8	567.8
Personal services		1,009.5	1,013.8	1,015.1	1,008.1	1,013.7	1,016.8	1,014.7	1,001.6	995.3	988.2	982.6	983.5	982.2	953.9
Laundries, cleaning and dyeing plants		548.2	552.2	555.6	552.7	561.1	565.6	565.2	553.5	548.1	542.4	538.0	540.8	546.5	532.9
Miscellaneous business services		1,256.7	1,246.5	1,239.9	1,227.5	1,232.0	1,225.6	1,214.1	1,189.7	1,178.3	1,169.9	1,160.0	1,144.1	1,102.2	1,022.1
Advertising		112.6	113.2	114.1	114.7	116.3	114.8	113.5	111.9	112.4	112.4	112.2	111.5	111.6	110.2
Credit reporting and collecting agencies		68.9	68.9	68.6	67.7	68.2	68.7	68.5	67.9	67.4	67.3	66.9	66.5	65.6	63.0
Motion pictures		183.8	185.0	187.3	190.7	199.8	202.1	192.7	180.9	179.8	173.6	171.5	177.9	183.3	177.4
Motion picture filming and distributing		58.7	57.6	55.6	52.8	55.9	58.5	52.3	46.6	47.8	47.6	49.9	53.2	48.2	42.8
Motion picture theaters and services		125.1	127.4	131.7	137.9	143.9	143.6	140.4	134.3	132.0	126.0	121.6	124.7	135.1	134.7
Medical and other health services		2,315.9	2,304.3	2,286.5	2,268.7	2,266.3	2,260.1	2,232.7	2,197.4	2,192.2	2,178.0	2,164.6	2,147.9	2,087.8	1,963.0
Hospitals		1,493.7	1,488.1	1,477.3	1,464.1	1,463.3	1,460.1	1,440.9	1,421.7	1,417.4	1,413.1	1,403.9	1,393.7	1,364.5	1,295.1
Legal services		200.4	199.4	198.8	198.6	201.0	202.3	196.0	188.4	187.9	188.2	186.4	185.0	182.7	173.9
Educational services		1,089.1	1,092.3	1,069.0	973.7	873.2	886.1	965.3	1,032.1	1,028.7	1,033.7	1,023.9	1,011.8	933.2	890.3
Elementary and secondary schools		353.8	354.5	347.3	326.8	282.3	285.9	328.4	345.1	344.2	344.3	343.3	342.1	317.8	301.6
Higher educational institutions		662.0	664.2	651.4	577.9	524.1	533.4	569.9	618.4	615.0	620.2	611.8	603.4	551.2	526.6
Miscellaneous services		489.1	487.5	484.9	490.2	498.4	497.2	491.1	479.8	480.3	482.0	477.1	471.3	452.1	422.6
Engineering and architectural services		267.1	266.1	264.8	268.3	273.4	273.9	271.2	264.1	261.5	259.9	256.9	254.9	242.4	225.9
Nonprofit research organizations		68.5	68.3	68.1	68.6	69.9	69.9	68.6	67.6	67.7	67.6	67.4	67.1	66.6	63.6

See footnotes at end of table.

TABLE A–9. Employees in nonagricultural establishments, by industry [1]—Continued

[In thousands] **Revised series; see box, p. 87.**

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Government	**11,281**	**11,444**	**11,285**	**11,139**	**10,885**	**10,507**	**10,557**	**10,906**	**10,834**	**10,795**	**10,735**	**10,622**	**10,490**	**10,091**	**9,596**
Federal Government [4]	2,621	2,769	2,641	2,612	2,589	2,641	2,637	2,592	2,513	2,496	2,460	2,431	2,406	2,378	2,348
Executive		2,736.4	2,608.2	2,579.3	2,556.4	2,608.0	2,604.2	2,559.8	2,481.5	2,461.5	2,428.8	2,399.7	2,375.4	2,346.7	2,317.5
Department of Defense		1,076.3	1,071.7	1,057.4	1,042.8	1,055.4	1,050.7	1,034.8	1,001.5	991.9	980.0	964.8	956.2	938.5	933.7
Post Office Department		837.8	706.3	689.6	682.0	689.4	683.1	673.6	660.2	652.8	639.5	632.4	624.4	614.2	599.9
Other agencies		822.3	830.2	832.3	831.6	863.2	870.4	851.4	819.8	816.8	809.3	802.5	794.8	793.9	783.9
Legislative		26.0	26.4	26.2	26.5	27.1	27.0	26.6	25.4	25.4	25.4	25.2	24.9	25.4	24.5
Judicial		6.1	6.2	6.1	6.1	5.9	5.9	5.9	6.0	6.0	6.9	5.9	5.9	5.9	5.8
State and local government [5]	8,660	8,675	8,644	8,527	8,296	7,866	7,920	8,314	8,321	8,302	8,275	8,191	8,084	7,713	7,249
State government		2,249.3	2,247.4	2,219.0	2,147.6	2,091.4	2,112.4	2,156.7	2,139.1	2,132.2	2,129.9	2,113.3	2,084.9	1,995.9	1,856.0
State education		867.9	869.3	843.2	736.4	656.2	679.6	756.7	786.7	787.4	786.6	773.0	755.6	679.1	608.8
Other state government		1,381.4	1,378.1	1,375.8	1,411.2	1,435.2	1,432.8	1,400.0	1,352.4	1,344.8	1,343.3	1,340.3	1,329.3	1,316.8	1,247.2
Local government		6,425.5	6,396.2	6,308.4	6,148.7	5,774.9	5,807.4	6,156.8	6,182.0	6,170.0	6,144.7	6,077.3	5,999.5	5,717.4	5,392.5
Local education		3,694.3	3,673.0	3,599.4	3,391.2	2,926.1	2,959.6	3,387.2	3,504.1	3,507.6	3,494.9	3,441.6	3,379.5	3,119.9	2,906.3
Other local government		2,731.2	2,723.2	2,709.0	2,757.5	2,848.8	2,847.8	2,769.6	2,677.9	2,662.4	2,649.8	2,635.7	2,620.0	2,597.5	2,486.3

[1] Beginning with the October 1966 issue, figures differ from those previously published. The industry series have been adjusted to March 1965 benchmarks (comprehensive counts of employment). For comparable back data, see *Employment and Earnings Statistics for the United States, 1909–66* (BLS Bulletin 1312–4). Statistics from April 1965 forward are subject to further revision when new benchmarks become available.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for any part of the pay period which includes the 12th of the month. Therefore, persons who worked in more than 1 establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

[2] Preliminary.

[3] Beginning January 1965, data relate to railroads with operating revenues of $5,000,000 or more.

[4] Data relate to civilian employees who worked on, or received pay for the last day of the month.

[5] State and local government data exclude, as nominal employees, elected officials of small local units and paid volunteer firemen.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except those for the Federal Government, which is prepared by the U.S. Civil Service Commission, and that for Class I railroads, which is prepared by the U.S. Interstate Commerce Commission.

TABLE A–10. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]

[In thousands]

Revised series; see box, p. 87.

Industry	1965	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Mining	477	486	487	490	496	506	502	504	491	452	482	480	484	494	497
Metal mining		71.3	71.2	70.9	72.5	73.5	72.8	73.3	70.8	70.1	69.5	69.8	69.6	69.5	65.9
Iron ores		21.9	21.8	21.8	22.3	22.2	21.7	22.4	21.7	20.6	20.0	20.3	20.3	21.8	21.0
Copper ores		26.4	26.2	26.5	26.9	27.3	27.0	27.0	26.2	26.3	26.3	26.2	26.0	24.8	22.1
Coal mining		124.7	124.5	124.5	124.2	124.0	121.0	123.8	122.5	86.8	123.6	124.5	124.5	124.1	129.7
Bituminous		117.6	117.4	117.4	117.0	116.8	114.3	116.5	114.8	79.3	115.5	116.1	116.0	115.3	119.8
Crude petroleum and natural gas		193.0	190.6	191.3	193.9	201.9	202.1	201.7	195.9	195.6	196.5	196.7	199.0	202.6	205.5
Crude petroleum and natural gas fields		81.4	81.4	82.0	84.4	87.0	87.3	86.9	84.2	84.3	84.7	84.8	85.4	88.4	91.9
Oil and gas field services		111.6	109.2	109.3	109.5	114.9	114.8	114.8	111.7	111.3	111.8	111.9	113.6	114.2	113.6
Quarrying and nonmetallic mining		96.9	100.7	103.0	105.2	106.4	106.5	105.4	101.7	99.3	92.0	88.5	91.1	98.0	95.8
Crushed and broken stone		34.4	35.5	36.7	37.5	38.0	37.9	37.5	36.0	35.0	31.5	29.6	31.4	34.9	34.3
Contract construction	2,422	2,625	2,812	2,950	3,026	3,141	3,122	3,026	2,788	2,673	2,499	2,339	2,461	2,707	2,597
General building contractors		889.0	930.7	959.3	977.3	1,017.3	1,004.4	975.0	891.6	869.7	823.9	772.9	818.9	856.2	817.3
Heavy construction		483.8	584.1	648.4	667.9	689.9	690.5	665.7	590.7	529.7	433.1	388.3	421.3	555.8	529.6
Highway and street construction		221.0	299.0	348.8	364.3	374.9	374.4	360.2	308.6	259.6	189.0	165.1	185.6	288.5	279.5
Other heavy construction		262.8	285.1	299.6	303.6	315.0	316.1	305.5	282.1	270.1	244.1	223.2	235.7	267.3	250.1
Special trade contractors		1,252.3	1,297.3	1,342.2	1,380.7	1,433.8	1,427.3	1,385.5	1,305.5	1,273.3	1,241.6	1,177.9	1,221.0	1,294.5	1,250.2
Plumbing, heating, and air conditioning		296.7	302.2	306.1	309.6	312.1	312.9	306.0	296.0	294.4	291.6	284.4	294.1	297.3	286.1
Painting, paperhanging, and decorating		110.4	119.9	131.9	137.5	145.3	141.8	133.3	122.6	116.0	109.1	103.3	104.5	127.6	126.5
Electrical work		196.5	199.8	201.2	206.4	211.1	206.4	200.2	191.1	188.5	184.1	180.7	182.5	186.0	174.0
Masonry, plastering, stone and tile work		185.3	194.4	208.2	217.4	234.3	231.8	227.7	215.4	209.9	209.6	188.4	189.4	216.5	220.2
Roofing and sheet metal work		91.3	94.9	96.1	95.5	97.1	96.2	93.9	86.6	85.9	83.6	76.2	84.1	89.5	87.0
Manufacturing	14,265	14,440	14,548	14,581	14,582	14,417	14,159	14,351	14,074	13,969	13,878	13,775	13,617	13,413	12,781
Durable goods	8,402	8,481	8,527	8,530	8,501	8,304	8,277	8,419	8,277	8,207	8,113	8,038	7,942	7,702	7,213
Nondurable goods	5,863	5,959	6,021	6,051	6,081	6,113	5,882	5,932	5,797	5,762	5,765	5,737	5,675	5,711	5,569
Durable goods															
Ordnance and accessories	136.8	132.2	132.6	129.3	126.6	122.8	120.2	119.1	117.0	113.4	111.9	110.0	106.8	96.0	104.1
Ammunition, except for small arms	89.4	84.9	86.0	83.9	82.6	79.4	77.2	76.7	76.1	75.2	74.2	73.0	71.1	63.6	68.1
Sighting and fire control equipment		6.4	6.3	6.3	6.2	6.2	6.2	6.0	5.8	5.7	5.5	5.4	5.3	5.0	5.9
Other ordnance and accessories	41.1	40.9	40.3	39.1	37.8	37.2	36.8	36.4	35.1	32.5	32.2	31.6	30.4	27.4	30.0
Lumber and wood products, except furniture	503.6	516.8	532.1	541.0	552.6	570.0	568.5	573.9	548.1	539.1	532.2	526.3	525.4	535.4	531.6
Sawmills and planing mills	210.2	214.0	219.4	222.6	228.9	235.2	234.6	237.0	229.5	229.4	227.1	222.7	225.1	229.3	230.8
Millwork, plywood, and related products	124.5	126.4	129.6	134.0	138.1	144.3	145.6	146.4	140.9	139.5	137.1	136.8	136.2	137.0	134.0
Wooden containers	32.0	31.8	31.4	31.4	31.5	32.8	32.2	33.3	32.6	31.8	30.9	30.6	30.7	31.0	31.7
Miscellaneous wood products	64.6	65.5	66.0	65.6	66.0	66.9	66.2	66.9	65.6	65.2	64.6	64.3	63.1	62.6	60.5
Furniture and fixtures	381.8	386.5	389.5	387.9	386.9	387.6	374.4	380.5	373.2	370.6	370.6	366.9	366.4	356.2	337.0
Household furniture	280.3	284.5	287.4	286.7	286.2	286.6	278.4	282.5	278.9	278.5	277.7	276.5	274.2	265.0	250.7
Office furniture		27.5	27.5	26.8	26.5	26.2	26.3	24.9	25.1	23.5	24.6	24.4	24.2	23.1	21.9
Partitions; office and store fixtures		35.7	35.4	35.1	35.3	36.3	34.4	35.3	33.2	33.0	32.8	31.0	32.8	32.2	29.7
Other furniture and fixtures	38.1	38.8	39.2	39.3	38.9	38.5	35.3	37.8	36.0	35.6	35.5	35.0	35.2	35.9	34.8
Stone, clay, and glass products	486.7	499.2	512.2	517.4	525.7	533.2	532.7	529.7	521.3	515.6	502.1	493.4	495.1	503.9	493.8
Flat glass		25.9	26.0	25.6	25.3	25.2	25.4	25.9	26.4	26.5	26.2	26.2	26.5	26.1	24.8
Glass and glassware, pressed or blown	106.2	107.2	108.6	108.2	110.1	110.2	109.4	109.9	107.7	105.0	103.4	102.4	101.0	100.6	97.5
Cement, hydraulic	25.5	27.4	29.0	29.5	29.9	30.9	30.9	30.3	29.2	28.6	27.2	27.0	27.7	29.4	30.3
Structural clay products	52.5	54.0	55.8	57.0	58.9	60.6	61.9	61.6	60.2	59.1	57.2	56.6	57.5	58.7	58.9
Pottery and related products		36.4	37.2	37.4	37.6	37.0	35.4	37.2	36.9	37.3	37.9	36.9	36.4	37.0	36.5
Concrete, gypsum, and plaster products	125.0	130.2	135.5	139.2	142.8	146.1	146.9	145.6	141.0	138.6	131.7	127.5	129.3	137.2	134.3
Other stone and mineral products	96.5	98.2	99.9	100.6	101.2	103.5	103.4	99.8	99.8	100.3	98.4	96.9	97.1	97.0	94.9
Primary metal industries	1,081.8	1,076.2	1,079.6	1,083.4	1,095.0	1,100.2	1,102.2	1,108.3	1,085.3	1,080.0	1,063.6	1,052.7	1,038.6	1,057.8	1,003.6
Blast furnace and basic steel products	521.9	516.3	521.7	527.6	537.2	545.8	553.6	551.8	537.1	530.9	517.8	506.9	498.5	538.0	515.6
Iron and steel foundries	204.5	202.0	201.9	201.7	202.0	202.8	201.4	204.5	201.3	202.1	199.9	200.8	199.6	193.9	181.9
Nonferrous smelting and refining	61.8	61.6	60.8	60.1	60.3	60.2	61.3	60.7	59.4	58.9	58.7	59.1	58.7	57.3	53.7
Nonferrous rolling, drawing, and extruding	162.3	163.5	164.0	164.1	164.4	162.0	158.7	160.4	159.5	159.6	159.1	158.3	156.1	149.4	141.6
Nonferrous foundries	74.2	75.0	74.1	73.7	75.1	74.4	72.0	74.4	72.7	73.1	72.6	72.4	70 9	67.5	62.5
Miscellaneous primary metal industries	57.1	57.8	57.1	56.2	56.0	55.0	55.2	56.5	55.3	55.4	55.5	55.2	54.8	51.6	48.3
Fabricated metal products	1,065.5	1,080.0	1,084.0	1,077.3	1,071.1	1,057.9	1,035.2	1,060.9	1,045.7	1,041.6	1,031.5	1,026.0	1,018.9	982.4	914.0
Metal cans	52.1	52.3	52.3	52.6	54.6	56.2	56.2	55.4	54.1	52.7	51.9	51.1	50.3	50.7	52.3
Cutlery, hand tools, and general hardware	130.8	131.9	132.5	132.0	131.1	126.8	121.1	127.7	127.2	130.1	129.5	128.3	127.9	122.8	113.2
Heating equipment and plumbing fixtures	57.5	59.2	59.9	60.3	60.2	60.3	58.6	60.2	60.9	60.1	60.7	60.5	59.6	59.1	60.5
Fabricated structural metal products	285.5	291.5	293.7	295.2	299.0	301.1	300.5	297.7	287.7	283.6	278.6	278.5	279.4	271.3	252.2
Screw machine products, bolts, etc	91.7	91.7	90.2	88.2	86.8	85.5	84.7	86.0	84.2	83.9	83.3	82.3	81.5	77.4	70.8
Metal stampings	204.2	206.7	207.5	204.6	197.9	186.8	176.8	190.7	192.7	193.2	193.8	192.8	191.9	180.8	161.1
Coating, engraving, and allied services	68.4	70.5	72.1	72.0	70.8	71.0	68.5	71.9	69.4	9.1	69.4	68.6	66.5	64.4	60.2
Miscellaneous fabricated wire products	57.6	57.0	57.0	56.0	55.3	55.3	55.1	55.0	53.6	53.6	53.5	52.8	52.7	50.4	46.3
Miscellaneous fabricated metal products	117.7	119.2	118.8	116.4	115.4	114.9	113.7	116.3	115.9	115.3	110.8	111.1	109.1	105.5	97.4

See footnotes at end of table.

TABLE A–10. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Durable goods—Continued															
Machinery	1,364.4	1,356.9	1,333.3	1,333.4	1,332.3	1,325.3	1,323.7	1,325.7	1,308.9	1,298.9	1,289.3	1,279.1	1,261.7	1,208.3	1,120.4
Engines and turbines	69.8	63.9	58.2	67.9	69.0	68.5	67.5	65.3	66.9	66.0	65.4	64.9	64.4	61.4	58.4
Farm machinery and equipment	-------	112.1	107.7	105.9	106.0	104.5	106.7	110.1	109.6	110.1	110.3	108.7	105.1	98.6	92.1
Construction and related machinery	190.2	189.5	189.3	189.7	191.4	190.7	192.9	192.5	189.2	186.9	184.4	182.6	178.9	175.1	160.5
Metalworking machinery and equipment	262.3	262.1	258.0	255.7	255.6	253.0	252.7	253.8	250.2	249.0	247.0	245.8	241.2	229.6	212.6
Special industry machinery	140.0	141.5	140.8	141.0	141.2	140.7	139.9	140.5	138.1	136.9	137.8	137.3	137.7	132.9	124.4
General industrial machinery	193.6	192.9	191.1	189.4	188.3	186.8	187.2	188.2	185.5	184.3	185.0	183.2	181.3	174.5	163.3
Office, computing, and accounting machines	134.6	133.7	132.3	131.0	130.2	129.1	127.1	125.6	124.6	123.0	121.8	120.8	120.3	111.7	101.9
Service industry machines	84.4	84.7	82.4	81.2	81.1	83.7	82.1	83.2	81.9	80.6	77.7	78.1	77.2	78.5	73.2
Miscellaneous machinery	176.6	176.5	173.5	171.6	169.5	168.3	167.6	166.5	162.9	162.1	159.9	157.7	155.6	146.0	134.1
Electrical equipment and supplies	1,365.8	1,374.1	1,380.1	1,385.3	1,365.6	1,345.4	1,302.2	1,322.4	1,291.1	1,281.0	1,256.3	1,252.5	1,236.6	1,139.8	1,036.8
Electric distribution equipment	136.2	136.4	136.2	138.3	137.2	136.8	134.2	133.7	128.6	127.5	126.1	124.6	124.0	116.0	108.5
Electrical industrial apparatus	161.7	158.0	154.6	157.9	156.0	157.8	155.0	154.8	147.5	149.3	147.7	145.6	143.9	134.7	122.7
Household appliances	146.3	150.9	150.0	153.5	148.6	144.4	134.1	143.0	145.6	143.9	131.1	140.8	136.8	130.6	124.6
Electric lighting and wiring equipment	150.4	151.8	151.2	153.5	152.6	150.7	148.3	152.1	149.7	148.1	145.9	144.2	142.0	134.0	123.2
Radio and TV receiving sets	156.1	155.9	158.1	154.2	148.8	141.2	128.6	128.8	121.6	120.5	120.8	121.4	122.4	107.1	91.8
Communication equipment	233.4	234.0	244.5	241.9	240.3	236.8	233.0	234.9	232.3	229.7	227.5	224.9	223.0	209.0	201.4
Electronic components and accessories	294.8	298.2	297.0	298.0	295.8	295.9	289.3	293.5	284.2	281.5	277.5	272.7	266.0	231.1	194.0
Miscellaneous electrical equipment and supplies	86.9	88.9	88.5	88.0	86.3	81.8	79.7	81.6	81.6	80.5	79.7	78.3	78.5	77.3	70.7
Transportation equipment	1,406.5	1,426.1	1,424.1	1,413.6	1,392.9	1,215.4	1,299.2	1,362.9	1,364.9	1,354.9	1,352.0	1,337.6	1,315.7	1,238.1	1,119.6
Motor vehicles and equipment	682.4	702.3	708.1	701.5	692.0	519.1	608.9	685.6	691.5	686.5	690.4	687.6	679.2	659.5	579.2
Aircraft and parts	496.4	493.0	486.4	475.9	468.0	458.2	451.7	438.1	434.7	429.8	422.2	413.3	405.0	357.0	338.6
Ship and boat building and repairing	141.2	140.3	135.6	141.5	137.8	142.5	144.1	141.5	142.8	143.8	148.9	147.8	144.7	133.0	121.1
Railroad equipment	-------	48.9	48.8	48.0	48.3	47.4	46.1	47.2	47.1	46.7	45.5	44.9	44.9	43.6	38.8
Other transportation equipment	-------	41.6	45.2	46.7	46.8	48.2	48.4	50.5	48.8	48.1	45.0	44.0	41.9	45.0	41.8
Instruments and related products	286.4	286.1	283.7	282.4	279.8	279.4	274.9	277.4	271.2	267.9	267.0	264.2	260.6	247.3	234.0
Engineering and scientific instruments	-------	40.7	40.2	40.0	39.0	38.9	38.1	38.3	37.6	37.3	37.7	37.7	37.2	35.9	36.0
Mechanical measuring and control devices	71.2	70.8	70.9	70.6	70.6	70.4	70.0	70.3	68.1	67.8	67.1	66.4	65.9	64.5	62.9
Optical and ophthalmic goods	36.8	36.1	36.5	35.7	35.6	35.1	34.0	35.0	35.4	35.3	35.0	34.7	33.9	32.6	30.8
Ophthalmic goods	-------	25.6	26.0	25.6	25.4	25.5	24.8	25.6	25.7	25.7	25.5	25.3	24.6	23.6	22.2
Surgical, medical, and dental equipment	47.3	47.5	47.0	46.7	46.2	46.4	45.6	45.4	44.6	43.9	43.8	43.0	42.2	39.7	37.5
Photographic equipment and supplies	-------	58.3	58.3	57.4	56.8	57.6	57.3	57.7	55.7	55.0	54.2	53.7	52.8	49.0	43.3
Watches and clocks	-------	32.7	30.8	32.0	31.6	31.0	29.9	30.7	29.8	28.6	29.2	28.7	28.6	25.8	23.5
Miscellaneous manufacturing industries	322.6	346.6	376.2	378.5	372.0	366.7	343.6	358.3	350.6	343.6	336.4	328.8	316.3	336.9	317.9
Jewelry, silverware, and plated ware	38.7	39.8	39.8	38.8	37.9	38.0	34.9	38.1	38.1	38.0	37.6	37.2	36.0	35.8	34.3
Toys, amusement, and sporting goods	-------	92.2	117.3	120.2	117.3	111.5	101.2	105.3	101.5	95.3	89.7	85.4	80.2	98.4	87.1
Pens, pencils, office and art materials	-------	26.7	26.7	26.7	26.9	26.9	26.7	26.8	26.1	26.2	26.1	25.5	24.0	24.9	23.6
Costume jewelry, buttons, and notions	-------	47.8	49.6	49.7	48.5	49.6	45.4	48.5	47.7	47.2	47.0	46.2	43.8	46.1	45.7
Other manufacturing industries	137.0	140.1	142.8	143.1	141.4	140.7	135.4	139.6	137.2	136.9	136.0	134.5	132.3	131.6	127.1
Musical instruments and parts	-------	23.2	22.8	22.9	22.6	22.6	22.2	22.0	22.1	22.0	22.2	21.9	21.8	20.5	18.1
Nondurable goods															
Food and kindred products	1,121.6	1,166.6	1,209.0	1,243.9	1,283.8	1,291.0	1,200.4	1,151.8	1,093.2	1,086.4	1,087.1	1,084.5	1,098.0	1,155.1	1,157.3
Meat products	256.7	265.0	265.5	265.6	262.9	263.5	261.1	254.9	246.7	243.0	243.5	245.0	246.0	251.8	252.5
Dairy products	120.5	121.6	122.0	123.8	127.2	133.4	135.6	133.7	128.3	126.6	125.0	123.6	123.2	131.0	134.8
Canned and preserved food, except meats	-------	212.2	242.7	280.1	335.8	336.2	260.9	213.7	186.0	189.1	181.9	183.4	185.8	220.1	214.8
Grain mill products	85.4	86.5	85.3	87.9	88.8	90.3	90.5	89.7	85.3	83.5	84.9	84.8	84.5	88.2	90.6
Bakery products	163.2	164.2	166.1	164.0	164.6	167.3	157.1	166.6	161.2	160.7	161.7	160.6	161.4	165.8	167.0
Sugar	-------	38.0	44.6	41.7	26.6	23.5	23.3	22.9	23.8	24.1	25.2	26.9	34.8	29.4	30.7
Confectionery and related products	61.3	68.9	69.8	66.9	64.5	62.1	56.1	57.7	56.7	56.2	62.0	61.9	62.1	61.9	62.1
Beverages	112.8	116.6	118.8	120.6	121.7	124.2	126.0	122.7	116.2	113.7	111.4	106.2	107.3	113.3	111.8
Miscellaneous food and kindred products	91.9	93.6	94.2	93.3	91.7	90.5	89.8	89.9	89.0	89.5	91.5	92.1	92.9	93.4	93.2
Tobacco manufactures	75.5	78.5	79.1	82.2	82.1	75.5	61.7	62.6	61.7	63.6	66.2	69.6	72.3	74.6	78.4
Cigarettes	-------	32.7	32.7	32.4	32.7	32.8	32.5	32.2	31.6	31.5	31.3	31.2	31.0	32.1	31.4
Cigars	-------	20.7	20.8	20.9	20.6	20.4	19.5	21.0	21.0	21.0	20.8	21.1	20.8	22.6	24.0
Textile mill products	834.8	844.7	851.4	854.0	855.5	862.5	843.7	861.6	849.7	845.6	841.7	835.8	829.9	823.1	798.2
Cotton broad woven fabrics	220.4	221.5	220.9	219.6	218.7	219.4	219.3	220.0	216.8	215.8	215.7	214.9	214.8	210.5	208.8
Silk and synthetic broad woven fabrics	85.3	86.4	86.4	86.5	86.9	87.4	86.3	86.8	85.5	85.5	85.6	85.1	84.9	82.9	81.7
Weaving and finishing broad woolens	37.0	36.6	36.4	36.9	38.2	39.3	39.1	39.9	39.6	39.3	39.4	39.1	38.6	38.8	39.5
Narrow fabrics and smallwares	29.0	29.1	29.0	28.8	28.5	28.3	27.1	28.3	28.0	27.9	27.6	27.4	27.0	26.2	24.6
Knitting	196.0	201.1	208.9	212.8	214.0	217.2	209.5	217.3	213.7	211.4	207.3	203.4	199.2	205.8	193.1
Finishing textiles, except wool and knit	63.7	64.9	64.4	63.8	63.9	64.4	63.9	65.0	64.4	64.3	63.9	63.7	63.7	64.5	65.3
Floor covering	-------	35.7	35.7	35.7	35.3	34.9	32.2	33.6	33.7	33.8	34.0	34.5	34.7	33.7	32.0
Yarn and thread	106.4	107.1	107.1	107.6	108.0	109.6	106.1	108.5	106.5	105.7	105.7	105.4	105.1	101.0	96.8
Miscellaneous textile goods	62.4	62.3	62.6	62.3	62.0	62.0	60.0	62.2	61.5	61.9	62.5	62.3	61.9	59.7	56.6

See footnotes at end of table.

TABLE A–10. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands]

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Nondurable goods—Continued															
Apparel and related products	1,231.7	1,244.4	1,260.5	1,263.4	1,257.3	1,264.7	1,198.5	1,257.9	1,241.6	1,225.6	1,246.1	1,238.6	1,181.1	1,205.1	1,158.3
Men's and boys' suits and coats	107.5	108.9	107.6	107.1	107.9	107.7	102.7	110.7	109.3	107.5	108.3	108.1	107.0	106.4	102.6
Men's and boys' furnishings	326.9	329.5	331.7	333.4	334.9	337.3	325.0	337.7	333.4	330.4	329.5	326.4	323.0	318.2	297.1
Women's, misses', and juniors' outerwear	380.6	379.6	383.8	385.2	383.3	389.0	368.6	385.3	383.1	374.2	390.0	390.6	359.2	375.1	363.3
Women's and children's undergarments	110.9	114.3	116.9	116.5	115.1	114.5	106.1	112.4	110.6	110.5	110.2	108.8	104.1	106.8	106.5
Hats, caps, and millinery	-------	25.1	24.3	25.1	25.3	26.0	24.0	24.1	21.9	23.0	27.5	27.8	24.7	25.9	26.4
Girls' and children's outerwear	71.9	70.1	71.7	71.6	71.5	73.5	72.7	74.9	72.2	70.0	72.7	73.1	68.8	70.2	69.4
Fur goods and miscellaneous apparel	-------	68.7	72.0	73.0	71.4	71.7	66.5	69.4	67.5	67.7	66.7	64.8	59.5	65.9	63.0
Miscellaneous fabricated textile products	143.5	148.2	152.5	151.5	147.9	145.0	132.9	143.4	143.6	142.3	141.2	139.0	134.8	136.7	130.0
Paper and allied products	526.3	532.9	533.5	528.7	526.5	533.5	527.8	529.8	515.0	514.0	509.6	506.8	506.9	498.5	488.8
Paper and pulp	171.8	173.9	173.4	172.0	173.2	176.5	178.0	177.0	171.5	170.8	169.7	169.1	169.3	169.1	169.9
Paperboard	55.4	55.5	55.3	54.6	54.9	55.2	54.9	54.9	53.7	53.7	53.3	53.3	53.6	53.4	53.0
Converted paper and paperboard products	127.0	129.0	129.5	128.8	127.3	128.8	125.7	126.5	122.8	123.5	121.9	120.3	119.7	116.6	112.4
Paperboard containers and boxes	172.1	174.5	175.3	173.3	171.1	172.0	169.2	171.4	167.0	166.0	164.7	164.1	164.3	159.3	153.5
Printing, publishing, and allied industries	664.0	672.1	666.2	664.0	661.4	657.8	653.2	653.0	645.6	645.2	640.5	638.1	632.9	621.8	602.1
Newspaper publishing and printing	179.2	183.4	181.7	181.3	181.2	177.7	178.0	178.2	177.8	178.7	175.3	177.3	176.6	175.6	169.7
Periodical publishing and printing	-------	26.3	26.1	25.9	25.8	25.7	25.2	25.4	25.5	25.7	26.2	26.2	25.7	25.4	26.1
Books	-------	56.9	55.0	54.7	54.7	56.5	55.9	55.3	54.6	54.4	54.5	53.4	52.0	49.9	47.3
Commercial printing	263.6	263.7	261.7	261.4	259.6	256.5	254.8	256.2	254.1	253.0	252.8	249.2	248.5	242.8	236.3
Bookbinding and related industries	45.1	46.5	46.5	46.3	47.0	48.3	46.9	46.3	44.0	44.2	43.8	42.8	42.0	41.8	39.5
Other publishing and printing industries	92.9	95.3	95.2	94.4	93.1	93.1	92.4	91.6	89.6	89.2	87.9	89.2	88.1	86.3	83.2
Chemicals and allied products	574.0	576.9	576.4	575.2	576.6	583.5	577.8	579.8	570.4	567.7	560.6	552.9	548.1	545.3	529.4
Industrial chemicals	171.8	171.4	170.9	168.8	171.4	172.9	171.8	171.7	168.2	168.1	167.7	167.1	165.8	166.4	165.5
Plastics materials and synthetics	135.6	138.7	138.9	138.8	139.9	142.1	141.2	140.5	137.2	137.0	136.1	135.3	135.1	131.3	122.2
Drugs	67.9	68.4	67.9	67.3	67.3	69.2	68.7	68.0	65.6	65.1	65.1	64.7	64.1	61.7	59.8
Soap, cleaners, and toilet goods	64.6	66.9	68.0	69.6	68.7	68.6	66.3	67.5	65.6	61.4	60.9	62.6	62.6	64.4	62.4
Paints, varnishes, and allied products	36.4	36.5	36.7	36.9	37.4	39.0	38.7	38.5	37.2	36.7	36.5	36.2	35.9	36.9	36.3
Agricultural chemicals	35.4	33.8	33.1	33.6	31.8	31.6	31.5	35.7	40.7	44.5	40.2	35.1	33.3	34.6	34.0
Other chemical products	62.3	61.2	60.9	60.2	60.1	60.1	59.6	57.9	55.9	54.9	54.1	51.9	51.3	50.0	49.3
Petroleum refining and related industries	111.0	112.7	114.2	114.7	116.2	118.2	118.2	117.0	113.7	111.9	110.3	109.8	109.5	112.4	114.2
Petroleum refining	88.8	89.2	89.2	88.8	89.3	90.4	90.3	89.6	87.9	87.6	87.4	87.4	87.1	88.3	90.4
Other petroleum and coal products	22.2	23.5	25.0	25.9	26.9	27.8	27.9	27.4	25.8	24.3	22.9	22.4	22.4	24.1	23.8
Rubber and miscellaneous plastic products	418.3	420.4	419.1	414.7	409.2	406.1	395.1	400.5	393.4	390.8	387.6	384.2	385.0	366.6	336.3
Tires and inner tubes	77.6	78.3	78.3	77.4	77.2	77.4	77.3	76.6	75.5	74.2	74.0	73.8	74.9	72.7	70.9
Other rubber products	152.0	149.5	147.2	146.0	145.0	143.0	140.0	143.2	142.4	141.0	141.5	141.1	142.2	136.4	128.6
Miscellaneous plastic products	188.7	192.6	193.6	191.3	187.0	185.7	177.8	180.7	175.5	175.6	172.1	169.3	167.9	157.5	136.8
Leather and leather products	305.3	310.1	312.0	310.3	312.4	319.9	306.0	317.9	312.4	310.7	315.1	316.5	311.1	308.3	305.5
Leather tanning and finishing	26.5	27.4	27.1	26.9	27.2	27.9	27.2	27.8	27.5	27.5	27.8	28.1	28.3	27.5	27.5
Footwear, except rubber	207.6	208.0	207.4	206.3	208.8	214.9	207.8	213.7	210.3	208.9	212.6	214.1	211.2	207.8	204.8
Other leather products	71.2	74.7	77.5	77.1	76.4	77.1	71.0	76.4	74.6	74.3	74.7	74.3	71.6	73.0	73.3
Handbags and personal leather goods	-------	31.3	33.2	33.1	32.2	32.5	29.0	31.5	29.9	30.3	31.6	31.2	29.4	30.7	32.3
Transportation and public utilities:															
Local and interurban passenger transit:															
Local and suburban transportation	-------	76.6	76.4	76.9	76.7	75.2	75.5	75.7	76.0	76.5	77.2	77.1	77.2	77.8	79.3
Intercity and rural bus lines	-------	39.0	39.0	39.4	40.4	41.2	40.6	36.3	38.7	38.0	37.5	37.2	38.1	38.7	38.7
Motor freight transportation and storage	-------	937.7	953.7	955.1	956.0	942.0	942.4	935.7	901.5	886.3	882.5	874.1	865.5	878.2	836.7
Public warehousing	-------	77.2	80.8	78.5	72.8	71.6	69.7	69.9	67.2	66.1	68.1	67.7	68.9	70.7	72.4
Pipeline transportation	-------	15.2	15.3	15.4	15.8	16.3	16.3	16.3	15.6	15.6	15.6	15.7	15.8	16.3	16.9
Communication	-------	745.9	745.6	741.1	742.9	754.7	750.4	735.0	720.2	716.4	710.6	705.6	702.5	698.1	674.5
Telephone communication	-------	629.6	629.5	624.8	626.9	638.2	634.0	619.9	606.7	603.0	598.4	593.8	591.2	587.2	565.9
Telegraph communication [3]	-------	23.1	23.0	23.1	23.0	23.1	23.1	22.8	22.7	22.5	22.4	22.3	22.1	22.2	22.9
Radio and television broadcasting	-------	91.0	91.0	91.1	90.9	91.3	91.2	90.2	88.7	88.8	87.7	87.4	87.1	86.8	84.0
Electric, gas, and sanitary services	-------	545.3	545.9	547.5	556.7	567.5	567.1	559.7	545.1	544.7	542.4	540.8	541.9	544.0	535.1
Electric companies and systems	-------	218.9	219.0	219.3	222.0	226.1	225.3	222.5	216.6	216.3	215.1	214.2	214.3	214.8	211.7
Gas companies and systems	-------	134.1	134.1	134.4	137.1	140.2	140.4	138.5	133.7	134.0	134.0	134.1	134.6	135.7	134.5
Combined utility systems	-------	156.0	156.3	156.8	160.0	162.9	163.1	161.0	157 9	157.9	157.3	156.9	157.1	158.1	155.5
Water, steam, and sanitary systems	-------	36.3	36.5	37.0	37.6	38.3	38.3	37.7	36.9	36.5	36.0	35.6	35.9	35.3	33.4
Wholesale and retail trade	11,870	12,765	12,139	11,936	11,802	11,787	11,798	11,815	11,643	11,595	11,419	11,339	11,433	11,326	10,869
Wholesale trade	2,964	3,012	2,992	2,982	2,960	2,984	2,977	2,945	2,875	2,864	2,855	2,850	2,856	2,818	2,719
Motor vehicles and automotive equipment	-------	223.6	223.5	220.3	221.1	223.7	223.0	221.8	219.7	218.6	218.0	217.4	218.3	214.9	206.8
Drugs, chemicals, and allied products	-------	175.8	176.1	174.4	172.6	174.1	172.7	171.5	168.3	167.8	167.8	167.3	167.0	164.2	159.0
Dry goods and apparel	-------	123.1	124.0	122.8	122.5	122.1	120.7	120.9	118.9	117.7	118.6	117.6	115.0	114.2	110.4
Groceries and related products	-------	460.8	460.7	465.2	452.4	454.6	468.6	467.1	443.8	436.8	436.5	436.0	447.0	449.0	439.9
Electrical goods	-------	233.6	231.7	228.9	227.3	233.1	232.3	226.9	223.8	224.2	222.6	221.4	219.2	214.0	203.5
Hardware, plumbing, and heating goods	-------	134.7	135.1	135.6	134.7	136.4	135.6	134.7	132.2	131.9	131.3	131.4	130.9	128.5	125.1
Machinery, equipment, and supplies	-------	542.8	539.7	536.7	537.2	542.9	541.1	531.4	519.6	517.7	512.3	507.5	503.6	490.6	465.4
Miscellaneous wholesalers	-------	1,019.0	1,013.4	1,009.7	1,005.1	1,011.9	1,009.2	996.9	977.7	976.4	972.1	970.3	966.3	956.2	920.0

See footnotes at end of table.

TABLE A–10. Production or nonsupervisory workers in nonagricultural establishments, by industry [1]—Continued

[In thousands] **Revised series; see box below.**

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Wholesale and retail trade—Continued															
Retail trade	8,906	9,753	9,147	8,954	8,842	8,803	8,821	8,870	8,768	8,731	8,564	8,489	8,577	8,508	8,151
General merchandise stores		2,388.8	1,998.1	1,848.8	1,779.6	1,734.8	1,731.7	1,750.1	1,732.7	1,729.2	1,690.3	1,669.9	1,758.1	1,721.2	1,613.0
Department stores		1,547.8	1,270.3	1,165.0	1,113.2	1,084.6	1,087.5	1,100.8	1,089.4	1,083.6	1,061.3	1,048.0	1,108.7	1,076.0	998.0
Mail order houses		145.8	138.0	122.2	112.2	108.7	107.0	106.6	105.1	106.7	108.5	110.7	122.5	112.1	101.3
Limited price variety stores		396.3	330.3	309.9	301.3	287.1	283.7	289.3	292.9	296.8	287.2	279.0	291.1	293.4	285.4
Food stores		1,484.7	1,472.3	1,466.9	1,443.8	1,431.4	1,438.9	1,440.0	1,433.0	1,425.6	1,425.6	1,419.4	1,410.5	1,368.7	1,320.9
Grocery, meat, and vegetable stores		1,308.4	1,303.4	1,299.9	1,278.6	1,269.1	1,276.8	1,274.5	1,267.8	1,259.2	1,262.1	1,253.4	1,249.2	1,204.8	1,160.6
Apparel and accessories stores		731.1	620.3	598.5	586.6	567.0	567.7	585.7	579.6	596.0	559.1	551.1	572.2	575.0	557.0
Men's and boys' apparel stores		132.6	104.3	100.1	97.7	96.2	96.7	98.9	95.5	95.7	93.7	96.8	101.3	94.6	90.2
Women's ready-to-wear stores		261.4	226.6	221.4	213.6	211.7	209.2	215.9	216.0	215.3	208.1	203.8	211.2	213.7	209.1
Family clothing stores		129.7	101.6	95.9	94.6	90.6	93.2	94.8	90.6	91.1	88.8	88.9	93.3	95.4	95.6
Shoe stores		131.0	116.7	112.8	114.1	106.1	107.0	110.4	111.9	127.5	104.7	100.4	104.4	108.1	102.7
Furniture and appliance stores		395.0	385.6	379.6	375.5	375.3	375.1	373.6	370.3	369.4	369.8	369.0	370.3	363.6	349.8
Furniture and home furnishings		251.8	246.8	242.1	240.3	239.5	241.5	240.5	237.4	236.1	235.9	235.6	236.9	234.4	225.8
Eating and drinking places		1,887.5	1,893.2	1,912.2	1,918.0	1,932.4	1,934.8	1,940.2	1,903.9	1,869.4	1,819.2	1,789.3	1,771.6	1,806.7	1,722.0
Other retail trade		2,866.1	2,777.1	2,748.1	2,738.8	2,762.0	2,772.5	2,780.0	2,748.7	2,741.2	2,700.3	2,690.5	2,694.7	2,672.8	2,587.8
Building materials and hardware		458.0	461.4	467.7	473.0	486.7	492.3	490.9	476.6	473.7	461.6	452.8	458.1	467.1	460.5
Motor vehicle dealers		641.9	641.1	636.7	634.5	638.9	642.0	640.8	636.9	639.0	639.7	638.4	638.2	626.0	596.8
Other vehicle and accessory dealers		174.3	169.0	165.9	165.8	169.0	168.1	166.3	162.9	159.6	154.1	152.5	155.8	154.9	144.4
Drug stores		427.2	394.1	388.1	381.2	377.9	376.5	379.1	375.7	375.8	372.7	371.9	374.7	366.2	354.8
Fuel and ice dealers		102.4	98.9	95.0	90.1	88.9	88.8	89.7	91.6	95.2	100.0	104.3	104.0	95.9	95.6
Finance, insurance, real estate [4]	2,459	2,475	2,472	2,473	2,485	2,522	2,526	2,493	2,454	2,441	2,431	2,413	2,410	2,425	2,386
Banking		696.3	694.1	691.6	692.8	701.9	698.3	685.1	671.9	671.3	669.1	666.2	665.3	662.6	645.9
Credit agencies other than banks		265.8	264.5	264.4	265.3	269.5	269.7	266.9	265.2	265.5	266.3	265.3	266.9	263.3	254.1
Savings and loan associations		75.1	74.8	75.5	75.4	77.4	78.4	77.5	77.6	78.8	78.8	78.8	80.0	79.7	78.2
Security dealers and exchanges		123.8	124.1	124.8	124.5	126.5	127.7	125.5	123.2	121.7	120.6	117.9	115.2	113.8	111.6
Insurance carriers		644.2	640.5	638.7	641.2	647.5	645.4	635.5	628.2	628.5	629.0	626.9	626.6	632.7	638.9
Life insurance		279.2	278.3	278.1	279.8	282.6	282.2	277.8	276.0	277.4	277.4	277.5	277.7	281.7	283.7
Accident and health insurance		58.5	57.4	56.4	55.4	55.5	54.4	52.1	49.9	49.0	48.3	47.5	47.1	46.5	47.0
Fire, marine, and casualty insurance		274.9	273.3	272.0	273.3	275.9	274.5	271.4	268.2	268.0	269.2	267.7	267.4	269.1	271.3
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels		516.4	526.7	545.9	573.0	610.5	612.9	585.7	556.5	541.9	524.4	522.0	510.8	541.8	532.4
Personal services:															
Laundries, cleaning and dyeing plants		496.2	499.8	502.9	499.7	508.2	512.0	511.5	499.7	494.3	489.0	484.7	486.8	490.3	474.4
Motion pictures:															
Motion picture filming and distribution		36.8	35.8	34.8	33.8	35.9	36.6	32.9	28.8	28.6	29.5	29.7	32.1	30.3	27.2

[1] For comparability of data with those published in issues prior to October 1966, and coverage of these series, see footnote 1, table A–9.

For mining and manufacturing data, refer to production and related workers; for contract construction, to construction workers; and for all other industries, to nonsupervisory workers.

Production and related workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, and watchmen services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations.

Construction workers include working foremen, journeymen, mechanics, apprentices, laborers, etc., engaged in new work, alterations, demolition, repair, and maintenance, etc., at the site of construction or working in shop or yards at jobs (such as precutting and preassembling) ordinarily performed by members of the construction trades.

Nonsupervisory workers include employees (not above the working supervisory level) such as office and clerical workers, repairmen, salespersons, operators, drivers, attendants, service employees, linemen, laborers, janitors, watchmen, and similar occupational levels, and other employees whose services are closely associated with those of the employees listed.

[2] Preliminary.

[3] Data relate to nonsupervisory employees except messengers.

[4] Nonoffice salesmen excluded from nonsupervisory count for all series in this division.

Caution

The revised series on employment, hours, and earnings, and labor turnover in nonagricultural establishments should not be compared with those published in issues prior to October 1966. (See footnote 1, table A–9, and "BLS Establishment Employment Estimates Revised to March 1965 Benchmark Levels" appearing in the September 1966 issue of *Employment and Earnings* and *Monthly Report on the Labor Force.*) Moreover, when the figures are again adjusted to new benchmarks, the data presented in this issue should not be compared with those in later issues which reflect the adjustments.

Comparable data for earlier periods are published in *Employment and Earnings Statistics for the United States*, 1909–66 (BLS Bulletin 1312–4), which is available at depository libraries or which may be purchased from the Superintendent of Documents for $4.50 a copy. For an individual industry, earlier data may be obtained upon request to the Bureau.

TABLE A–11. Employees in nonagricultural establishments, by industry division and selected groups, seasonally adjusted [1]

[In thousands]

Revised series; see box, p. 87.

Industry division and group	1967	1966											
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
Total	65,360	65,081	64,823	64,466	64,168	64,199	64,072	63,983	63,517	63,350	63,247	62,811	62,469
Mining	631	628	624	625	628	636	636	632	628	595	637	634	635
Contract construction	3,286	3,286	3,204	3,202	3,228	3,251	3,297	3,300	3,238	3,333	3,419	3,323	3,318
Manufacturing	19,480	19,445	19,415	19,312	19,204	19,262	19,128	19,167	19,002	18,923	18,840	18,722	18,566
Durable goods	11,464	11,439	11,424	11,387	11,322	11,324	11,210	11,220	11,122	11,065	11,007	10,911	10,805
Ordnance and accessories	274	266	269	265	262	260	257	257	253	249	245	243	238
Lumber and wood products, except furniture	613	606	607	607	609	621	622	628	623	633	642	633	638
Furniture and fixtures	465	465	463	460	459	462	456	458	456	451	451	448	446
Stone, clay, and glass products	641	638	636	633	633	637	643	641	643	647	649	646	648
Primary metal industries	1,343	1,342	1,351	1,351	1,341	1,351	1,338	1,333	1,315	1,307	1,300	1,295	1,290
Fabricated metal products	1,382	1,379	1,378	1,365	1,357	1,360	1,346	1,348	1,341	1,345	1,344	1,332	1,322
Machinery	1,941	1,933	1,917	1,912	1,903	1,901	1,888	1,865	1,846	1,827	1,818	1,810	1,797
Electrical equipment and supplies	1,966	1,960	1,959	1,962	1,941	1,948	1,903	1,904	1,877	1,860	1,824	1,805	1,773
Transportation equipment	1,951	1,962	1,960	1,951	1,945	1,910	1,888	1,915	1,901	1,887	1,881	1,853	1,819
Instruments and related products	447	444	439	439	432	431	430	428	424	418	415	412	406
Miscellaneous manufacturing industries	441	444	445	442	440	443	439	443	443	441	438	434	428
Nondurable goods	8,016	8,006	7,991	7,925	7,882	7,938	7,918	7,947	7,880	7,858	7,833	7,811	7,761
Food and kindred products	1,786	1,781	1,781	1,750	1,737	1,765	1,763	1,760	1,748	1,757	1,767	1,762	1,758
Tobacco manufactures	89	85	87	78	79	80	85	86	85	86	86	85	85
Textile mill products	950	951	950	950	952	957	955	957	952	950	948	945	942
Apparel and related products	1,411	1,408	1,406	1,403	1,390	1,395	1,388	1,424	1,412	1,396	1,386	1,384	1,356
Paper and allied products	684	684	682	676	670	677	679	674	665	664	662	661	657
Printing, publishing, and allied industries	1,053	1,050	1,044	1,039	1,035	1,035	1,031	1,026	1,018	1,017	1,009	1,007	1,003
Chemicals and allied products	976	976	974	969	965	968	963	961	945	937	936	932	927
Petroleum refining and related industries	182	183	183	182	182	184	186	183	183	182	181	181	182
Rubber and miscellaneous plastic products	532	534	529	523	517	520	518	515	508	506	500	496	494
Leather and leather products	353	354	355	355	355	357	350	361	364	363	358	358	357
Transportation and public utilities	4,223	4,195	4,195	4,165	4,168	4,105	4,122	4,143	4,132	4,114	4,109	4,105	4,091
Wholesale and retail trade	13,532	13,404	13,393	13,340	13,268	13,264	13,256	13,217	13,164	13,128	13,085	13,045	13,009
Wholesale trade	3,531	3,518	3,505	3,486	3,474	3,483	3,483	3,470	3,445	3,434	3,422	3,404	3,391
Retail trade	10,001	9,886	9,888	9,854	9,794	9,781	9,773	9,747	9,719	9,694	9,663	9,641	9,618
Finance, insurance, and real estate	3,128	3,120	3,110	3,102	3,100	3,100	3,095	3,090	3,076	3,068	3,064	3,051	3,052
Service and miscellaneous	9,858	9,819	9,778	9,712	9,649	9,647	9,609	9,549	9,515	9,484	9,463	9,410	9,363
Government	11,222	11,184	11,104	11,008	10,923	10,934	10,929	10,885	10,762	10,705	10,630	10,521	10,435
Federal	2,639	2,629	2,621	2,615	2,594	2,610	2,601	2,571	2,523	2,501	2,477	2,451	2,423
State and local	8,583	8,555	8,483	8,393	8,329	8,324	8,328	8,314	8,239	8,204	8,153	8,070	8,012

[1] For coverage of the series, see footnote 1, table A–9.
[2] Preliminary.

NOTE: The seasonal adjustment method used is described in *The BLS Seasonal Factor Method* (1966) which may be obtained from the Bureau on request.

TABLE A–12. Production workers in manufacturing industries, by major industry group, seasonally adjusted [1]

[In thousands]

Revised series; see box, p. 87.

Major industry group	1967	1966											
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
Manufacturing	14,487	14,445	14,436	14,350	14,268	14,330	14,201	14,281	14,154	14,100	14,048	13,967	13,833
Durable goods	8,494	8,468	8,467	8,442	8,395	8,395	8,293	8,328	8,261	8,226	8,190	8,123	8,033
Ordnance and accessories	136	130	131	128	126	124	122	120	118	114	112	110	106
Lumber and wood products, except furniture	534	529	530	529	531	542	543	550	546	554	563	556	557
Furniture and fixtures	386	385	385	381	380	382	378	381	379	374	375	372	370
Stone, clay, and glass products	516	510	507	507	507	512	515	515	516	521	525	520	525
Primary metal industries	1,095	1,091	1,103	1,102	1,092	1,100	1,090	1,086	1,070	1,066	1,058	1,055	1,051
Fabricated metal products	1,077	1,076	1,074	1,062	1,055	1,060	1,043	1,048	1,046	1,049	1,047	1,039	1,029
Machinery	1,364	1,360	1,348	1,346	1,339	1,338	1,331	1,312	1,299	1,284	1,278	1,274	1,262
Electrical equipment and supplies	1,362	1,355	1,358	1,363	1,350	1,353	1,320	1,327	1,308	1,297	1,268	1,260	1,233
Transportation equipment	1,386	1,393	1,395	1,392	1,389	1,353	1,324	1,358	1,351	1,344	1,344	1,323	1,296
Instruments and related products	287	285	281	280	277	278	277	276	273	270	269	266	261
Miscellaneous manufacturing industries	351	354	355	352	349	353	350	355	355	353	351	348	343
Nondurable goods	5,993	5,977	5,969	5,908	5,873	5,935	5,908	5,953	5,893	5,874	5,858	5,844	5,800
Food and kindred products	1,189	1,185	1,186	1,156	1,145	1,170	1,165	1,166	1,154	1,163	1,174	1,169	1,163
Tobacco manufactures	77	73	74	66	67	68	73	74	73	74	74	73	73
Textile mill products	847	848	847	847	848	856	850	854	850	847	846	843	842
Apparel and related products	1,256	1,250	1,250	1,246	1,234	1,239	1,232	1,268	1,257	1,239	1,230	1,231	1,204
Paper and allied products	531	531	531	525	520	528	530	525	519	518	515	514	512
Printing, publishing, and allied industries	671	667	662	659	657	659	656	654	648	647	642	641	639
Chemicals and allied products	581	583	581	576	575	582	577	578	564	559	560	558	555
Petroleum refining and related industries	115	115	115	114	114	115	115	115	113	113	112	113	113
Rubber and miscellaneous plastic products	419	417	413	409	403	406	403	403	396	395	390	387	386
Leather and leather products	307	308	310	310	310	312	307	316	319	319	315	315	313

[1] For definition of production workers, see footnote 1, table A–10.
[2] Preliminary.

NOTE: The seasonal adjustment method used is described in *The BLS Seasonal Factor Method* (1966) which may be obtained from the Bureau on request.

TABLE A–13. Unemployment insurance and employment service program operations [1]

[All items except average benefit amounts are in thousands]

Item	1966												1965
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Employment service: [2]													
New applications for work	721	794	819	801	869	896	1,314	906	806	850	852	905	707
Nonfarm placements	420	513	592	619	619	549	622	568	533	547	460	452	462
State unemployment insurance programs:													
Initial claims [3 4]	1,280	915	709	626	826	1,019	690	665	693	769	985	1,399	1,285
Insured unemployment [5] (average weekly volume) [6]	1,254	903	753	755	928	947	793	862	1,044	1,301	1,590	1,644	1,307
Rate of insured unemployment [7]	2.7	1.9	1.6	1.6	2.0	2.1	1.8	1.9	2.3	2.9	3.6	3.7	3.0
Weeks of unemployment compensated	3,971	2,960	2,476	2,817	3,639	3,022	3,087	3,385	4,098	5,852	5,653	5,587	4,555
Average weekly benefit amount for total unemployment	$41.39	$40.57	$39.84	$39.68	$40.65	$39.05	$38.72	$38.86	$39.38	$39.83	$39.66	$39.36	$38.81
Total benefits paid	$157,566	$114,814	$93,697	$106,548	$143,058	$113,812	$114,358	$126,149	$155,494	$225,472	$217,171	$212,659	$172,110
Unemployment compensation for ex-servicemen: [8 9]													
Initial claims [3 6]	17	15	13	12	16	17	14	12	13	17	18	20	20
Insured unemployment [6] (average weekly volume)	21	16	14	15	19	19	17	18	22	27	31	32	29
Weeks of unemployment compensated	75	59	51	63	81	63	72	76	92	121	120	126	111
Total benefits paid	$2,973	$2,450	$2,117	$2,561	$3,204	$2,443	$2,872	$2,936	$3,558	$4,620	$4,572	$4,816	$4,278
Unemployment compensation for Federal civilian employees: [9 10]													
Initial claims [3]	10	9	9	7	8	11	9	7	7	8	11	19	12
Insured unemployment [5] (average weekly volume)	20	17	16	16	18	19	18	18	21	26	29	29	23
Weeks of unemployment compensated	75	67	60	67	79	65	79	78	92	118	109	100	94
Total benefits paid	$3,045	$2,752	$2,466	$2,731	$3,239	$2,645	$3,255	$3,217	$3,718	$4,717	$4,319	$3,973	$3,740
Railroad unemployment insurance:													
Applications [11]	7	6	6	7	8	18	25	42	6	5	4	11	14
Insured unemployment (average weekly volume)	19	18	16	16	15	16	15	18	23	26	28	30	28
Number of payments [12]	40	38	34	36	35	31	54	77	53	69	54	68	66
Average amount of benefit payment [13]	$76.70	$73.80	$71.99	$72.07	$74.96	$72.16	$60.07	$50.55	$69.79	$77.68	$79.10	$77.32	$71.04
Total benefits paid [14]	$2,858	$2,550	$2,126	$2,422	$2,499	$2,138	$2,913	$3,750	$3,606	$5,154	$4,148	$5,092	$4,587
All programs: [15]													
Insured unemployment [6]	1,313	955	799	802	980	1,001	841	916	1,112	1,381	1,679	1,739	1,394

[1] Includes data for Puerto Rico beginning January 1961 when the Commonwealth's program became part of the Federal-State UI system.

[2] Includes Guam and the Virgin Islands.

[3] Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transitions claims under State programs.

[4] Includes interstate claims for the Virgin Islands.

[5] Number of workers reporting the completion of at least 1 week of unemployment.

[6] Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

[7] The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.

[8] Excludes data on claims and payments made jointly with other programs.

[9] Includes the Virgin Islands.

[10] Excludes data on claims and payments made jointly with State programs.

[11] An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.

[12] Payments are for unemployment in 14-day registration periods.

[13] The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.

[14] Adjusted for recovery of overpayments and settlement of underpayments.

[15] Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act.

SOURCE: U.S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B–1. Labor turnover rates, by major industry group [1]

[Per 100 employees] **Revised series; see box, p. 87.**

Major industry group	1966												1965	Annual average	
	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1965	1964
Accessions: Total															
Manufacturing:															
Actual	2.9	3.9	5.1	6.1	6.4	5.1	6.7	5.1	4.6	4.9	4.2	4.6	3.1	4.3	4.0
Seasonally adjusted	*4.5*	*4.9*	*5.1*	*5.0*	*5.1*	*4.6*	*5.3*	*5.1*	*4.8*	*5.2*	*4.9*	*4.9*	*4.8*		
Durable goods	2.8	3.8	4.8	5.9	6.2	4.5	6.5	4.9	4.6	4.9	4.2	4.7	3.1	4.1	3.7
Ordnance and accessories	2.4	3.6	4.5	4.3	4.2	3.8	4.8	3.6	3.6	3.7	3.4	3.5	2.0	2.9	2.0
Lumber and wood products, except furniture	3.5	4.5	5.9	6.9	7.0	6.4	10.2	8.6	8.8	7.3	5.9	6.1	3.7	6.0	5.3
Furniture and fixtures	3.4	5.6	7.4	8.5	8.9	6.8	7.8	6.8	6.3	6.5	5.6	5.6	3.8	5.5	4.8
Stone, clay, and glass products	2.3	3.1	3.9	4.5	5.0	4.6	6.7	5.3	5.5	5.7	3.8	4.0	2.4	4.0	3.8
Primary metal industries	2.3	2.8	3.3	3.8	4.4	3.0	5.6	3.8	3.4	3.9	3.5	4.0	2.7	2.9	3.0
Fabricated metal products	3.2	4.4	5.4	6.2	7.1	5.2	6.9	5.5	5.0	5.2	4.6	5.0	3.2	4.6	4.2
Machinery	2.7	3.2	3.9	4.2	4.4	3.8	5.7	3.9	3.6	3.8	3.5	3.9	2.7	3.3	3.0
Electrical equipment and supplies	2.6	3.7	5.1	5.5	5.9	4.3	6.2	4.6	4.3	4.7	4.2	4.7	3.4	3.9	3.3
Transportation equipment	2.8	3.8	5.1	8.4	9.0	4.5	6.2	4.8	4.2	5.4	4.3	5.2	3.5	4.7	4.1
Instruments and related products	2.6	3.0	3.9	4.2	4.3	4.1	5.9	3.9	3.4	3.8	3.5	3.6	2.5	3.2	2.8
Miscellaneous manufacturing industries	3.0	5.5	8.3	9.2	8.3	7.7	7.8	7.0	6.8	6.9	6.5	6.7	3.3	6.3	5.7
Nondurable goods	3.0	4.2	5.4	6.3	6.7	6.0	7.1	5.3	4.7	4.8	4.2	4.4	3.1	4.6	4.3
Food and kindred products	3.9	5.4	7.6	9.2	10.3	9.2	10.2	6.7	5.7	5.5	4.6	4.4	3.4	6.1	6.1
Tobacco manufactures	6.6	5.8	6.1	7.1	15.9	9.0	4.8	3.7	3.0	4.2	4.5	4.9	7.7	6.0	6.8
Textile mill products	3.0	4.2	5.2	5.9	6.3	5.3	6.3	5.5	5.5	5.3	4.4	4.6	3.1	4.3	3.8
Apparel and related products	3.2	4.9	5.8	6.7	7.5	7.4	7.0	6.8	5.6	5.8	5.8	6.4	3.7	5.8	5.5
Paper and allied products	2.4	3.4	4.4	4.8	4.4	3.9	6.8	4.3	3.7	3.8	3.2	3.3	2.3	3.2	2.8
Printing, publishing, and allied industries	2.5	3.3	4.1	4.9	4.4	3.7	5.5	3.8	3.4	3.5	3.2	3.2	2.5	3.2	3.1
Chemicals and allied products	1.7	2.2	2.7	3.0	2.8	2.6	5.1	3.1	2.8	3.4	2.6	2.5	1.7	2.4	2.1
Petroleum refining and related industries	1.1	1.4	1.9	2.0	2.0	2.2	4.5	2.3	2.3	1.9	1.5	1.9	1.3	1.8	1.6
Rubber and miscellaneous plastic products	3.1	4.9	6.0	6.9	7.1	5.9	7.3	5.4	4.9	5.3	4.4	4.7	3.1	4.4	3.9
Leather and leather products	3.9	5.3	6.2	6.6	7.3	7.5	7.4	6.5	5.5	6.0	6.1	7.1	4.4	5.4	5.1
Nonmanufacturing:															
Metal mining	2.4	2.8	3.0	3.0	3.6	3.2	6.4	3.9	3.4	2.9	2.9	3.3	2.5	3.2	3.2
Coal mining	1.5	1.7	2.0	1.8	2.2	1.6	1.8	1.7	1.7	1.7	1.4	1.8	1.1	1.7	1.7
Accessions: New hires															
Manufacturing:															
Actual	2.1	3.1	4.1	4.7	4.8	3.9	5.6	4.1	3.6	3.7	3.1	3.2	2.2	3.1	2.6
Seasonally adjusted	*3.7*	*3.8*	*3.9*	*3.6*	*3.7*	*3.5*	*4.0*	*4.0*	*3.9*	*4.3*	*3.9*	*3.8*	*3.8*		
Durable goods	2.1	3.1	4.1	4.5	4.5	3.5	5.5	4.0	3.7	3.8	3.2	3.3	2.3	3.0	2.4
Ordnance and accessories	2.1	3.0	4.0	3.7	3.4	3.1	4.1	3.0	2.8	2.9	2.7	2.7	1.3	1.8	1.1
Lumber and wood products, except furniture	2.7	3.8	5.3	6.1	6.3	5.8	9.2	7.4	7.0	6.0	4.5	4.4	3.1	4.8	4.1
Furniture and fixtures	3.0	5.1	6.7	7.6	7.9	6.0	7.1	6.2	5.6	5.9	4.9	4.9	3.3	4.7	3.9
Stone, clay, and glass products	1.6	2.5	3.3	3.8	4.1	3.7	5.7	4.3	4.1	3.8	2.6	2.5	1.5	2.7	2.4
Primary metal industries	1.5	2.1	2.6	3.2	3.1	2.3	4.7	3.1	2.7	2.7	2.1	2.0	1.3	2.0	1.8
Fabricated metal products	2.5	3.7	4.6	5.4	5.4	4.0	5.9	4.6	4.1	4.2	3.6	3.7	2.5	3.5	2.9
Machinery	2.2	2.7	3.3	3.7	3.5	2.9	4.9	3.3	3.1	3.2	3.0	3.2	2.1	2.6	2.2
Electrical equipment and supplies	2.0	3.1	4.3	4.7	4.6	3.4	5.3	3.9	3.6	3.9	3.4	3.7	2.7	2.9	2.1
Transportation equipment	1.8	2.8	3.9	4.1	4.0	3.1	4.7	3.4	3.0	3.3	3.0	3.2	2.3	2.8	2.2
Instruments and related products	2.3	2.7	3.5	3.8	3.8	3.3	5.4	3.4	3.1	3.3	3.0	3.1	2.1	2.6	1.9
Miscellaneous manufacturing industries	2.4	4.9	7.5	8.2	7.2	5.4	6.3	5.4	5.2	5.0	4.3	4.0	2.5	4.5	3.8
Nondurable goods	2.2	3.2	4.2	5.0	5.2	4.4	5.7	4.1	3.6	3.6	3.0	3.0	2.1	3.2	2.8
Food and kindred products	2.8	3.9	5.5	7.0	7.9	7.0	7.6	4.8	3.8	3.4	2.8	2.7	2.1	4.1	3.8
Tobacco manufactures	3.3	4.5	4.3	4.8	10.0	4.0	3.2	2.3	1.8	2.0	1.8	2.0	4.5	3.3	3.7
Textile mill products	2.2	3.3	4.1	4.9	5.2	4.0	5.3	4.6	4.5	4.2	3.4	3.4	2.4	3.3	2.7
Apparel and related products	2.0	3.5	4.3	5.0	5.4	4.5	5.2	4.6	4.1	4.4	3.7	3.9	2.2	3.7	3.3
Paper and allied products	2.0	3.1	4.0	4.4	3.9	3.4	6.0	3.8	3.2	3.2	2.6	2.6	1.8	2.5	2.0
Printing, publishing, and allied industries	2.0	2.8	3.5	4.1	3.7	3.1	4.6	3.2	2.9	2.8	2.6	2.6	1.9	2.6	2.4
Chemicals and allied products	1.3	1.8	2.3	2.6	2.4	2.1	4.5	2.6	2.4	2.8	2.0	1.9	1.2	1.9	1.6
Petroleum refining and related industries	.8	1.2	1.7	1.8	1.7	2.0	3.8	1.9	1.7	1.5	1.2	1.2	.8	1.4	1.1
Rubber and miscellaneous plastic products	2.6	4.1	5.3	6.1	5.7	4.4	6.4	4.6	4.1	4.3	3.5	3.5	2.5	3.4	2.6
Leather and leather products	2.9	4.1	4.8	.3	5.6	5.3	6.4	5.1	4.3	4.7	4.3	5.1	3.3	3.9	3.4
Nonmanufacturing:															
Metal mining	1.5	2.0	2.4	2.5	2.7	2.7	5.2	2.6	2.1	2.0	2.0	1.9	1.8	2.2	2 1
Coal mining	1.0	1.1	1.3	1.2	1.4	1.1	1.1	1.1	1.0	1.1	.9	1.0	.7	.9	.9

See footnotes at end of table.

TABLE B–1. Labor turnover rates, by major industry group [1]—Continued

[Per 100 employees] **Revised series; see box, p. 87.**

Major industry group	1966												1965	Annual average	
	Dec. [2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1965	1964
Separations: Total															
Manufacturing:															
Actual	4.1	4.3	4.8	6.6	5.8	5.3	4.4	4.3	4.3	4.1	3.6	4.0	4.1	4.1	3.9
Seasonally adjusted	*4.3*	*4.5*	*4.5*	*5.1*	*4.8*	*5.0*	*4.9*	*4.7*	*4.7*	*4.6*	*4.4*	*4.1*	*4.3*		
Durable goods	3.8	4.0	4.5	6.1	5.5	5.4	4.2	4.1	3.9	3.8	3.5	3.7	3.7	3.8	3.6
Ordnance and accessories	1.5	2.1	2.8	4.0	3.1	3.0	2.5	2.7	2.7	2.4	2.1	2.1	1.6	2.5	3.4
Lumber and wood products, except furniture	6.4	7.5	7.5	9.4	8.6	6.6	6.7	7.0	7.1	7.3	5.4	6.3	6.7	6.1	5.5
Furniture and fixtures	4.7	5.7	6.8	8.3	8.4	6.4	6.0	6.1	6.2	6.1	5.2	5.0	4.3	5.1	4.6
Stone, clay, and glass products	4.7	4.5	4.7	6.8	5.9	4.5	4.2	4.2	4.1	3.7	3.7	4.5	4.3	3.9	3.7
Primary metal industries	2.9	3.1	3.6	5.6	4.3	3.6	2.8	2.9	2.6	2.6	2.3	2.6	2.9	3.0	2.3
Fabricated metal products	4.0	4.7	5.3	7.0	6.3	5.4	5.0	5.1	4.7	4.5	4.1	4.2	3.9	4.2	4.1
Machinery	2.5	2.6	3.2	5.1	4.5	3.8	3.3	3.2	3.3	3.1	2.6	3.0	2.3	2.8	2.6
Electrical equipment and supplies	3.1	3.4	4.0	5.8	4.5	4.0	3.8	3.6	3.4	3.5	3.0	3.2	2.9	3.1	3.2
Transportation equipment	4.0	3.6	4.3	5.3	6.4	9.8	4.8	4.1	3.9	3.8	4.2	3.8	3.9	4.3	4.1
Instruments and related products	2.6	2.5	3.6	4.9	3.7	3.3	3.0	2.8	2.9	2.8	2.5	2.7	2.2	2.7	2.7
Miscellaneous manufacturing industries	11.3	8.6	6.8	8.6	7.2	6.6	5.4	5.7	5.4	5.0	4.6	6.3	10.9	5.9	5.7
Nondurable goods	4.5	4.7	5.4	7.3	6.1	5.3	4.6	4.5	4.7	4.4	3.8	4.5	4.6	4.4	4.3
Food and kindred products	6.8	7.2	8.4	11.0	7.9	6.2	5.6	5.5	5.6	5.6	5.1	5.8	6.8	6.1	6.0
Tobacco manufactures	6.5	6.3	4.9	5.6	8.3	5.5	3.4	4.0	6.7	6.1	5.6	9.2	7.2	6.4	6.8
Textile mill products	4.4	4.8	5.3	6.7	6.5	5.5	4.7	5.0	5.0	4.7	3.9	4.3	4.0	4.1	3.8
Apparel and related products	5.6	5.4	5.8	7.2	7.2	7.9	6.0	5.9	6.6	5.6	4.5	5.8	5.9	5.8	5.6
Paper and allied products	3.0	3.5	4.1	6.6	5.1	3.5	3.6	3.4	3.5	3.3	2.9	3.3	3.0	3.1	2.8
Printing, publishing, and allied industries	2.8	3.0	3.5	5.1	4.6	3.3	3.5	3.1	3.2	2.9	2.8	3.3	3.1	3.1	3.0
Chemicals and allied products	2.0	2.0	2.5	4.6	3.0	2.2	2.6	2.6	2.4	2.3	1.8	2.1	1.9	2.2	2.0
Petroleum refining and related industries	1.6	1.9	2.1	3.9	2.6	2.1	2.0	1.8	1.9	1.6	1.5	1.8	1.9	1.9	1.8
Rubber and miscellaneous plastic products	4.0	4.5	5.5	7.2	6.2	5.7	4.8	4.8	4.7	4.6	4.0	4.1	3.9	4.2	3.8
Leather and leather products	6.5	5.1	5.9	8.4	7.8	8.1	5.7	5.6	6.3	6.2	5.1	6.0	5.6	5.3	5.0
Nonmanufacturing:															
Metal mining	3.3	3.4	4.0	6.0	3.8	3.7	2.9	3.1	3.2	3.2	2.4	2.7	3.3	3.1	3.0
Coal mining	1.5	1.6	1.8	1.9	1.5	2.5	1.3	1.8	2.2	1.8	1.5	1.7	1.7	1.9	1.8
Separations: Quits															
Manufacturing:															
Actual	1.6	2.1	2.8	4.5	3.6	2.5	2.5	2.5	2.5	2.3	1.8	1.9	1.4	1.9	1.5
Seasonally adjusted	*2.6*	*2.7*	*2.6*	*2.6*	*2.5*	*2.5*	*2.5*	*2.5*	*2.7*	*2.7*	*2.4*	*2.3*	*2.3*		
Durable goods	1.5	2.0	2.6	4.2	3.4	2.3	2.3	2.3	2.3	2.2	1.7	1.7	1.3	1.7	1.3
Ordnance and accessories	.8	1.1	1.6	2.6	1.9	1.5	1.5	1.4	1.4	1.3	1.2	1.2	.8	1.1	.9
Lumber and wood products, except furniture	2.4	3.4	4.7	6.9	6.1	4.6	5.0	5.3	5.2	4.3	3.2	2.8	2.5	3.4	3.8
Furniture and fixtures	2.6	3.7	4.8	6.5	6.2	4.2	4.0	4.4	4.4	4.3	3.3	3.1	2.4	3.1	2.4
Stone, clay, and glass products	1.4	1.9	2.6	4.4	3.6	2.5	2.5	2.4	2.4	2.0	1.6	1.6	1.2	1.6	1.3
Primary metal industries	1.1	1.3	1.8	3.8	2.7	1.5	1.5	1.5	1.5	1.4	1.1	1.1	.8	1.2	.9
Fabricated metal products	1.7	2.4	3.0	4.8	4.0	2.6	2.7	2.7	2.8	2.5	2.0	2.0	1.5	1.9	1.5
Machinery	1.3	1.5	1.9	3.5	2.7	1.9	1.9	1.9	2.0	1.8	1.4	1.5	1.1	1.4	1.1
Electrical equipment and supplies	1.6	1.9	2.5	4.2	3.1	2.0	2.3	2.1	2.1	2.1	1.7	1.8	1.4	1.6	1.2
Transportation equipment	1.1	1.5	2.0	3.1	2.5	1.8	1.8	1.8	1.7	1.7	1.4	1.4	1.0	1.3	1.0
Instruments and related products	1.5	1.5	2.4	3.7	2.6	1.8	1.9	1.7	1.9	1.8	1.5	1.5	1.2	1.4	1.2
Miscellaneous manufacturing industries	2.1	3.9	4.6	6.5	4.9	3.3	3.2	3.4	3.2	3.1	2.5	2.5	2.0	2.6	2.0
Nondurable goods	1.8	2.4	3.1	5.0	4.0	2.8	2.7	2.7	2.7	2.4	2.0	2.1	1.6	2.1	1.7
Food and kindred products	2.3	2.9	3.9	6.7	4.7	3.1	3.0	2.8	2.7	2.4	2.0	2.0	1.7	2.4	2.0
Tobacco manufactures	1.3	1.7	2.3	3.4	2.8	1.7	1.4	1.7	1.7	1.7	1.4	1.5	1.1	1.5	1.3
Textile mill products	2.3	2.9	3.6	5.1	4.9	3.5	3.4	3.6	3.7	3.3	2.6	2.7	2.0	2.5	2.1
Apparel and related products	2.0	2.8	3.4	4.7	4.6	3.7	3.2	3.3	3.2	2.9	2.5	2.8	2.0	2.6	2.2
Paper and allied products	1.5	2.1	2.7	5.1	3.5	2.2	2.3	2.2	2.2	2.1	1.6	1.7	1.3	1.7	1.3
Printing, publishing, and allied industries	1.5	1.8	2.2	3.7	3.1	2.1	2.3	2.0	2.0	1.8	1.7	1.8	1.3	1.7	1.5
Chemicals and allied products	.9	1.0	1.4	3.3	2.1	1.1	1.3	1.3	1.3	1.2	.9	1.0	.7	1.0	.8
Petroleum refining and related industries	.5	.6	.9	2.3	1.4	.9	1.0	.9	.9	.7	.5	.5	.5	.7	.6
Rubber and miscellaneous plastic products	2.0	2.7	3.5	5.3	4.3	2.8	2.9	2.9	3.0	2.8	2.2	2.2	1.7	2.1	1.5
Leather and leather products	2.8	3.4	4.3	6.3	5.9	4.4	4.2	3.9	4.0	3.9	3.2	3.3	2.7	3.0	2.4
Nonmanufacturing:															
Metal mining	.8	1.3	1.7	4.8	2.7	2.0	1.8	2.0	2.0	1.6	1.3	1.2	1.2	1.7	1.5
Coal mining	.6	.6	.8	1.1	.9	.9	.6	.7	.8	.8	.6	.5	.4	.6	.5

See footnotes at end of table.

TABLE B–1. Labor turnover rates, by major industry group [1]—Continued

[Per 100 employees]

Revised series; see box, p. 87.

Major industry group	1966												1965	Annual average	
	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1965	1964
	Separations: Layoffs														
Manufacturing:															
Actual	1.8	1.3	1.1	1.0	1.1	2.0	1.0	0.9	1.0	.7	1.0	1.3	1.9	1.4	1.7
Seasonally adjusted	*1.3*	*1.1*	*1.0*	*1.1*	*1.0*	*1.7*	*1.3*	*1.1*	*1.2*	.4	*1.2*	*1.2*	*1.4*	-------	-------
Durable goods	1.6	1.1	.8	.8	1.1	2.2	.9	.8	.7	1.9	.9	1.1	1.6	1.2	1.5
Ordnance and accessories	.2	.4	.5	.4	.4	.6	.3	.5	.6	.6	.3	.4	.3	.8	1.8
Lumber and wood products, except furniture	3.4	3.1	1.7	1.3	1.4	.9	.7	.6	.8	.8 .4	1.3	2.6	3.4	1.7	1.9
Furniture and fixtures	1.2	1.0	.7	.5	.7	1.1	.9	.5	.6	1.0	.8	.9	1.0	1.0	1.3
Stone, clay, and glass products	2.7	1.8	1.1	1.1	1.0	1.1	.8	.9	.8	*1.2*	1.4	2.1	2.4	1.5	1.7
Primary metal industries	1.0	.8	.7	.6	.5	1.1	.4	.4	.3		.4	.8	1.3	1.0	.8
Fabricated metal products	1.3	1.3	1.1	1.0	1.0	1.7	1.3	1.3	1.0	1.1	1.1	1.2	1.5	1.4	1.8
Machinery	.5	.4	.4	.6	.8	1.0	.4	.4	.4	.4	.3	.5	.5	.6	.8
Electrical equipment and supplies	.6	.5	.4	.4	.3	1.0	.5	.4	.4	.4	.4	.5	.6	.8	1.2
Transportation equipment	2.2	1.2	1.3	1.2	2.8	7.1	2.0	1.3	1.3	1.2	1.9	1.5	2.1	2.1	2.3
Instruments and related products	.4	.3	.4	.4	.3	.8	.3	.3	.4	.3	.3	.4	.3	.6	.9
Miscellaneous manufacturing industries	8.4	3.5	.8	.8	1.1	2.3	1.1	1.3	1.1	.9	1.3	2.8	8.1	2.3	2.8
Nondurable goods	2.1	1.6	1.5	1.4	1.3	1.7	1.1	1.1	1.3	1.3	1.1	1.7	2.3	1.6	1.9
Food and kindred products	3.9	3.5	3.6	3.3	2.3	2.3	1.9	2.1	2.2	2.5	2.4	3.0	4.4	2.9	3.3
Tobacco manufactures	4.5	3.9	1.7	1.5	4.8	3.2	1.4	1.7	4.5	3.8	3.8	7.1	5.7	4.4	4.9
Textile mill products	1.4	1.1	.8	.6	.6	1.1	.5	.4	.4	.5	.6	.9	1.3	.8	1.1
Apparel and related products	3.0	1.9	1.6	1.6	1.8	3.2	2.0	1.9	2.6	2.0	1.3	2.2	3.3	2.4	2.6
Paper and allied products	.7	.6	.4	.5	.5	.5	.4	.4	.5	.5	.5	.8	1.0	.8	.9
Printing, publishing, and allied industries	.9	.6	.6	.7	.8	.6	.6	.6	.6	.6	.6	.9	1.2	.9	1.0
Chemicals and allied products	.6	.5	.5	.6	.3	.5	.7	.7	.5	.6	.4	.6	.7	.7	.8
Petroleum refining and related industries	.7	.7	.6	.9	.6	.6	.3	.4	.4	.5	.5	.8	1.0	.6	.7
Rubber and miscellaneous plastic products	1.1	.7	.7	.6	.6	1.8	.7	.8	.7	.7	.8	.9	1.3	1.2	1.5
Leather and leather products	2.9	1.0	.8	1.1	.9	2.7	.7	.9	1.4	1.2	.9	1.8	2.1	1.5	1.8
Nonmanufacturing:															
Metal mining	1.4	1.5	1.2	.2	.2	.8	.3	.3	.3	.9	.4	.7	1.3	.7	.7
Coal mining	.5	.5	.3	.2	.2	1.2	.4	.7	1.1	.6	.6	.4	.8	.9	.9

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A-9.

Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons: (1) the labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

[2] Preliminary.

C.—Earnings and Hours

TABLE C–1. Gross hours and earnings of production workers,[1] by industry

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Mining	$133.14	$132.71	$131.66	$134.78	$133.73	$131.58	$131.46	$132.80	$130.85	$121.72	$127.37	$126.30	$126.48	$123.52	$117.74
Metal mining	-------	134.82	135.24	135.14	136.64	134.62	135.79	134.93	132.51	133.88	129.79	130.62	132.19	127.30	122.54
Iron ores	-------	134.48	136.29	136.29	142.23	138.32	143.99	142.35	136.27	139.63	133.74	133.74	136.36	129.24	125.83
Copper ores	-------	142.79	143.11	142.46	140.62	140.51	139.64	138.13	137.26	138.97	135.99	137.49	139.64	136.71	130.42
Coal mining	-------	155.50	146.20	156.98	151.00	149.33	145.70	153.41	152.31	111.52	143.44	142.45	142.04	137.45	126.88
Bituminous	-------	158.25	148.13	159.80	154.09	152.44	148.03	156.98	155.12	112.85	146.08	144.79	144.73	140.23	128.91
Crude petroleum and natural gas	-------	123.48	124.53	123.68	123.68	121.84	123.70	121.70	121.84	122.41	121.69	120.42	121.27	116.18	112.63
Crude petroleum and natural gas fields	-------	129.34	129.74	129.74	129.34	125.96	129.68	126.98	127.30	129.15	126.36	127.39	128.84	123.62	120.95
Oil and gas field services	-------	119.26	120.89	118.86	118.86	118.46	119.26	118.28	117.75	117.13	118.09	115.37	115.54	110.31	106.43
Quarrying and nonmetallic mining	-------	120.67	124.03	129.44	129.44	128.46	127.64	126.90	122.29	120.31	116.48	113.70	112.05	117.45	111.85
Crushed and broken stone	-------	121.64	125.76	130.95	131.49	131.14	130.9	128.87	121.47	119.20	114.29	109.03	107.65	116.58	110.62
Contract construction	149.57	148.06	143.39	152.08	151.67	149.38	150.15	146.69	141.71	140.59	143.26	139.05	138.34	138.01	132.06
General building contractors	-------	140.46	136.26	141.70	140.56	138.00	137.27	135.05	132.09	131.74	134.32	130.30	129.23	128.16	122.79
Heavy construction	-------	142.00	138.16	155.55	156.09	152.34	154.07	150.45	137.07	137.94	139.47	131.41	133.23	137.90	131.78
Highway and street construction	-------	130.07	131.58	154.86	157.04	153.47	195.46	151.64	134.06	135.05	133.95	123.00	126.64	136.45	130.00
Other heavy construction	-------	152.38	145.51	156.91	155.04	151.44	152.21	148.42	140.76	141.05	143.42	137.16	138.06	139.60	133.93
Special trade contractors	-------	155.72	151.20	157.96	157.88	155.70	156.59	153.38	150.88	148.15	150.26	147.38	146.21	144.99	138.35
Plumbing, heating, and air conditioning	-------	164.58	158.76	165.85	166.21	163.90	163.12	161.09	160.27	156.21	157.12	155.54	155.94	152.08	144.40
Painting, paperhanging, and decorating	-------	141.50	142.26	144.68	145.16	143.08	145.04	141.21	140.30	137.28	136.26	134.64	133.13	134.97	128.52
Electrical work	-------	185.26	178.89	185.26	183.46	180.45	180.12	177.45	177.00	173.57	174.60	172.60	173.94	169.89	165.17
Masonry, plastering, stone, and tile work	-------	140.90	135.38	144.79	142.90	143.72	144.63	140.65	139.15	138.98	142.00	134.92	125.58	133.56	127.31
Roofing and sheet metal work	-------	126.21	121.84	132.46	129.17	128.16	129.23	123.90	118.61	117.57	123.20	119.39	118.74	117.65	112.49
Average weekly hours															
Mining	42.0	42.4	42.2	43.2	43.0	43.0	43.1	43.4	42.9	41.4	42.6	42.1	42.3	42.3	41.9
Metal mining	-------	42.0	42.0	42.1	42.7	42.2	42.7	42.7	42.2	42.5	41.6	41.6	42.1	41.6	41.4
Iron ores	-------	41.0	41.3	41.3	43.1	42.3	43.5	43.4	41.8	42.7	40.9	40.9	41.7	41.9	40.2
Copper ores	-------	43.8	43.9	43.7	43.4	43.1	43.5	43.3	43.3	43.7	42.9	43.1	43.5	43.4	42.9
Coal mining	-------	41.8	39.3	42.2	40.7	40.8	-------	41.8	41.5	32.8	41.1	40.7	40.7	39.9	39.0
Bituminous	-------	42.2	39.5	42.5	41.2	41.2	-------	42.2	41.7	32.9	41.5	40.9	41.0	40.2	39.2
Crude petroleum and natural gas	-------	42.0	42.5	42.5	42.5	42.6	43.1	42.7	42.6	42.8	43.0	42.4	42.7	42.4	42.5
Crude petroleum and natural gas fields	-------	40.8	40.8	40.8	40.8	40.5	41.3	40.7	40.8	41.0	40.5	40.7	40.9	40.8	41.0
Oil and gas field services	-------	42.9	43.8	43.7	43.7	44.2	44.5	44.3	44.1	44.2	44.9	43.7	44.1	43.6	43.8
Quarrying and nonmetallic mining	-------	44.2	45.1	46.9	46.9	47.2	47.1	47.0	45.8	45.4	44.8	43.9	43.6	45.7	45.1
Crushed and broken stone	-------	45.9	47.1	48.5	48.7	49.3	49.4	49.0	46.9	46.2	45.9	44.5	44.3	47.2	45.9
Contract construction	37.3	37.2	36.3	38.5	38.3	38.4	39.0	38.3	37.0	36.9	37.7	36.4	36.5	37.4	37.2
General building contractors	-------	36.2	35.3	36.9	36.7	36.8	37.1	36.6	35.7	35.8	36.8	35.6	35.6	36.1	35.8
Heavy construction	-------	40.0	38.7	42.5	42.3	42.2	43.4	42.5	39.5	40.1	40.9	38.2	39.3	40.8	40.8
Highway and street construction	-------	39.9	38.7	43.5	43.5	43.6	44.8	43.7	39.9	40.8	41.6	38.2	39.7	41.6	41.4
Other heavy construction	-------	40.1	38.7	41.4	40.8	40.6	41.7	41.0	39.1	39.4	40.4	38.1	39.0	40.0	40.1
Special trade contractors	-------	36.9	36.0	37.7	37.5	37.7	38.1	37.5	36.8	36.4	37.1	36.3	36.1	36.8	36.6
Plumbing, heating, and air conditioning	-------	39.0	37.8	39.3	39.2	39.4	39.4	39.1	38.9	38.1	38.7	38.5	38.6	38.6	38.1
Painting, paperhanging and decorating	-------	35.2	35.3	35.9	36.2	36.5	37.0	36.3	35.7	35.2	35.3	34.7	34.4	35.8	35.7
Electrical work	-------	39.5	37.9	39.5	39.2	39.4	39.5	39.0	38.9	38.4	38.8	38.7	39.0	38.7	38.5
Masonry, plastering, stone, and tile work	-------	34.2	33.1	35.4	34.6	35.4	35.8	34.9	34.7	34.4	35.5	33.9	32.2	34.6	34.5
Roofing and sheet metal work	-------	33.3	33.2	35.8	35.1	35.6	36.2	35.2	33.6	33.4	35.0	32.8	32.8	34.5	34.4
Average hourly earnings															
Mining	$3.17	$3.13	$3.12	$3.12	$3.11	$3.06	$3.05	$3.06	$3.05	$2.94	$2.99	$3.00	$2.99	$2.92	$2.81
Metal mining	-------	3.21	3.22	3.21	3.20	3.19	3.18	3.16	3.14	3.15	3.12	3.14	3.14	3.06	2.96
Iron ores	-------	3.28	3.30	3.30	3.30	3.27	3.31	3.28	3.26	3.27	3.27	3.27	3.27	3.16	3.13
Copper ores	-------	3.26	3.26	3.26	3.24	3.26	3.21	3.19	3.17	3.18	3.17	3.19	3.21	3.15	3.04
Coal mining	-------	3.72	3.72	3.72	3.71	3.66	-------	3.67	3.67	3.40	3.49	3.50	3.49	3.45	3.26
Bituminous	-------	3.75	3.75	3.76	3.74	3.70	-------	3.72	3.72	3.43	3.52	3.54	3.53	3.49	3.30
Crude petroleum and natural gas	-------	2.94	2.93	2.91	2.91	2.86	2.87	2.85	2.86	2.86	2.83	2.84	2.84	2.74	2.65
Crude petroleum and natural gas fields	-------	3.17	3.18	3.18	3.17	3.11	3.14	3.12	3.12	3.15	3.12	3.13	3.15	3.03	2.95
Oil and gas field services	-------	2.78	2.76	2.72	2.72	2.68	2.68	2.67	2.67	2.65	2.63	2.64	2.62	2.53	2.43
Quarrying and nonmetallic mining	-------	2.73	2.75	2.76	2.76	2.73	2.71	2.70	2.67	2.65	2.60	2.59	2.57	2.57	2.48
Crushed and broken stone	-------	2.65	2.67	2.70	2.70	2.66	2.65	2.63	2.59	2.58	2.49	2.45	2.43	2.47	2.41
Contract construction	4.01	3.98	3.95	3.95	3.96	3.89	3.85	3.83	3.83	3.81	3.80	3.82	3.79	3.69	3.55
General building contractors	-------	3.88	3.86	3.84	3.83	3.75	3.70	3.69	3.70	3.68	3.65	3.66	3.63	3.55	3.43
Heavy construction	-------	3.55	3.57	3.66	3.69	3.61	3.55	3.54	3.47	3.44	3.41	3.44	3.39	3.38	3.23
Highway and street construction	-------	3.26	3.40	3.56	3.61	3.52	3.47	3.47	3.36	3.31	3.22	3.22	3.19	3.28	3.14
Other heavy construction	-------	3.80	3.76	3.79	3.80	3.73	3.65	3.62	3.60	3.58	3.55	3.60	3.54	3.49	3.34
Special trade contractors	-------	4.22	4.20	4.19	4.21	4.13	4.11	4.09	4.10	4.07	4.05	4.06	4.05	3.94	3.78
Plumbing, heating, and air conditioning	-------	4.22	4.20	4.22	4.24	4.16	4.14	4.12	4.12	4.10	4.06	4.04	4.04	3.94	3.79
Painting, paperhanging and decorating	-------	4.02	4.03	4.03	4.01	3.92	3.92	3.89	3.93	3.90	3.86	3.88	3.87	3.77	3.60
Electrical work	-------	4.69	4.72	4.69	4.68	4.58	4.56	4.55	4.55	4.52	4.50	4.46	4.46	4.39	4.29
Masonry, plastering, stone, and tile work	-------	4.12	4.09	4.09	4.13	4.06	4.04	4.03	4.01	4.04	4.00	3.98	3.90	3.86	3.69
Roofing and sheet metal work	-------	3.79	3.67	3.70	3.68	3.60	3.57	3.52	3.53	3.52	3.52	3.64	3.62	3.41	3.27

See footnotes at end of table.

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TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Manufacturing	$113.15	$114.40	$113.99	$113.85	$113.71	$111.78	$111.11	$112.74	$112.05	$111.24	$110.95	$110.27	$110.00	$107.53	$102.97
Durable goods	122.84	124.20	123.77	124.07	123.94	120.54	119.81	121.82	121.82	121.54	120.69	120.69	119.99	117.18	112.19
Nondurable goods	99.65	100.25	100.10	99.94	99.54	99.23	99.14	99.23	98.33	96.96	96.88	96.88	95.52	94.64	90.91
Ordnance and accessories	138.32	139.10	137.92	136.63	136.95	134.82	133.88	134.20	134.51	133.46	132.82	134.09	136.21	131.57	122.72
Ammunition, except for small arms	136.78	137.94	136.45	135.55	135.88	135.88	134.23	134.31	136.03	134.55	134.64	136.69	140.15	136.08	124.84
Sighting and fire control equipment	-------	135.78	133.35	121.60	128.96	125.66	127.62	133.65	131.55	130.42	134.51	136.20	135.79	127.08	129.34
Other ordnance and accessories	140.30	142.97	141.48	141.48	139.02	133.72	133.90	134.98	132.44	132.00	129.03	127.58	126.98	121.93	116.40
Lumber and wood products, except furniture	89.67	91.20	92.00	94.83	94.83	94.07	93.66	93.94	94.66	92.48	88.91	88.88	88.75	88.54	85.24
Sawmills and planing mills	82.86	83.74	84.77	86.67	87.26	87.72	86.90	86.92	86.94	85.48	82.62	81.99	82.22	82.01	79.60
Millwork, plywood, and related products	99.14	99.06	97.60	100.12	100.61	100.12	99.63	100.91	102.61	100.08	97.88	97.47	98.18	96.93	93.11
Wooden containers	74.26	75.81	76.04	75.44	76.78	76.91	75.95	76.91	77.71	76.31	73.80	73.62	72.98	72.75	68.63
Miscellaneous wood products	87.31	87.74	88.78	88.58	88.38	87.77	87.12	87.56	88.19	87.35	87.14	85.90	85.90	84.67	81.79
Furniture and fixtures	90.00	93.79	92.74	93.86	93.21	93.26	89.13	91.96	90.67	88.75	90.06	88.58	88.15	87.98	84.46
Household furniture	83.74	87.76	87.13	88.19	87.14	87.15	82.61	85.70	84.87	83.84	84.87	84.05	83.23	83.21	79.93
Office furniture	-------	116.85	114.65	115.01	114.58	115.02	110.50	112.41	111.02	107.78	108.54	109.37	108.11	104.06	97.88
Partitions; office and store fixtures	-------	116.76	114.81	117.74	118.83	119.63	115.93	119.54	116.60	113.58	113.02	110.83	110.43	112.86	105.85
Other furniture and fixtures	-------	100.44	98.94	100.91	101.48	99.36	97.75	98.41	97.02	94.58	94.43	92.70	91.65	92.18	87.33
Average weekly hours															
Manufacturing	40.7	41.3	41.3	41.4	41.5	41.4	41.0	41.6	41.5	41.2	41.4	41.3	41.2	41.2	40.7
Durable goods	41.5	42.1	42.1	42.2	42.3	42.0	41.6	42.3	42.3	42.2	42.2	42.2	42.1	42.0	41.4
Nondurable goods	39.7	40.1	40.2	40.3	40.3	40.5	40.3	40.5	40.3	39.9	40.2	40.2	39.8	40.1	39.7
Ordnance and accessories	42.3	42.8	42.7	42.3	42.4	42.0	42.1	42.2	42.3	42.1	41.9	42.3	42.7	41.9	40.5
Ammunition, except for small arms	41.2	41.8	41.6	41.2	41.3	41.3	41.3	41.2	41.6	41.4	41.3	41.8	42.6	42.0	40.4
Sighting and fire control equipment	-------	42.3	42.2	39.1	41.6	40.8	41.3	42.7	42.3	41.8	42.7	43.1	42.7	40.6	40.8
Other ordnance and accessories	44.4	45.1	45.2	45.2	44.7	43.7	43.9	44.4	44.0	44.0	43.3	43.1	42.9	41.9	40.7
Lumber and wood products, except furniture	39.5	40.0	40.0	40.7	40.7	40.9	40.9	41.2	41.7	41.1	40.6	40.4	40.9	40.8	40.4
Sawmills and planing mills	38.9	39.5	39.8	40.5	40.4	40.8	40.8	41.0	41.4	40.9	40.5	39.8	40.5	40.6	40.2
Millwork, plywood, and related products	40.3	40.6	40.0	40.7	40.9	41.2	41.0	41.7	42.4	41.7	41.3	41.3	41.6	41.6	41.2
Wooden containers	40.8	41.2	41.1	41.0	41.5	41.8	41.5	41.8	42.7	41.7	41.0	40.9	41.0	41.1	39.9
Miscellaneous wood products	40.8	41.0	41.1	41.2	41.3	41.4	40.9	41.3	41.6	41.4	41.3	41.1	41.1	41.3	41.1
Furniture and fixtures	40.0	41.5	41.4	41.9	41.8	42.2	40.7	41.8	41.4	40.9	41.5	41.2	41.0	41.5	41.2
Household furniture	39.5	41.2	41.1	41.6	41.3	41.7	40.1	41.4	41.0	40.7	41.4	41.0	40.8	41.4	41.2
Office furniture	-------	43.6	43.1	43.4	43.4	43.9	42.5	43.4	43.2	42.6	42.9	43.4	42.9	42.3	41.3
Partitions; office and store fixtures	-------	41.7	41.3	42.2	42.9	43.5	41.7	43.0	42.4	41.3	41.4	41.2	40.9	41.8	40.4
Other furniture and fixtures	-------	42.2	42.1	42.4	43.0	43.2	42.5	42.6	42.0	41.3	41.6	41.2	41.1	41.9	41.0
Average hourly earnings															
Manufacturing	$2.78	$2.77	$2.76	$2.75	$2.74	$2.70	$2.71	$2.71	$2.70	$2.70	$2.68	$2.67	$2.67	$2.61	$2.53
Durable goods	2.96	2.95	2.94	2.94	2.93	2.87	2.88	2.88	2.88	2.88	2.86	2.86	2.85	2.79	2.71
Nondurable goods	2.51	2.50	2.49	2.48	2.47	2.45	2.46	2.45	2.44	2.43	2.41	2.41	2.40	2.36	2.29
Ordnance and accessories	3.27	3.25	3.23	3.23	3.23	3.21	3.18	3.18	3.18	3.17	3.17	3.17	3.19	3.14	3.03
Ammunition, except for small arms	3.32	3.30	3.28	3.29	3.29	3.29	3.25	3.26	3.27	3.25	3.26	3.27	3.29	3.24	3.09
Sighting and fire control equipment	-------	3.21	3.16	3.11	3.10	3.08	3.09	3.13	3.11	3.12	3.15	3.16	3.18	3.13	3.17
Other ordnance and accessories	3.16	3.17	3.13	3.13	3.11	3.06	3.05	3.04	3.01	3.00	2.98	2.96	2.96	2.91	2.86
Lumber and wood products, except furniture	2.27	2.28	2.30	2.33	2.33	2.30	2.29	2.28	2.27	2.25	2.19	2.20	2.17	2.17	2.11
Sawmills and planing mills	2.13	2.12	2.13	2.14	2.16	2.15	2.13	2.12	2.10	2.09	2.04	2.06	2.03	2.02	1.98
Millwork, plywood, and related products	2.46	2.44	2.44	2.46	2.46	2.43	2.43	2.42	2.42	2.40	2.37	2.36	2.36	2.33	2.26
Wooden containers	1.82	1.84	1.85	1.84	1.85	1.84	1.83	1.84	1.82	1.83	1.80	1.80	1.78	1.77	1.72
Miscellaneous wood products	2.14	2.14	2.16	2.15	2.14	2.12	2.13	2.12	2.12	2.11	2.11	2.09	2.09	2.05	1.99
Furniture and fixtures	2.25	2.26	2.24	2.24	2.23	2.21	2.19	2.20	2.19	2.17	2.17	2.15	2.15	2.12	2.05
Household furniture	2.12	2.13	2.12	2.12	2.11	2.09	2.06	2.07	2.07	2.06	2.05	2.05	2.04	2.01	1.94
Office furniture	-------	2.68	2.66	2.65	2.64	2.62	2.60	2.59	2.57	2.53	2.53	2.52	2.52	2.46	2.37
Partitions; office and store fixtures	-------	2.80	2.78	2.79	2.77	2.75	2.78	2.78	2.75	2.75	2.73	2.69	2.70	2.70	2.62
Other furniture and fixtures	-------	2.38	2.35	2.38	2.36	2.30	2.30	2.31	2.31	2.29	2.27	2.25	2.23	2.20	2.13

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
	Average weekly earnings														
Manufacturing—Continued															
Durable goods—Continued															
Stone, clay, and glass products	$113.85	$115.23	$115.79	$116.47	$116.05	$115.75	$113.82	$115.60	$114.63	$114.09	$112.83	$110.54	$110.66	$110.04	$105.50
Flat glass	-------	155.79	160.60	159.87	153.99	152.44	141.60	151.01	152.34	155.86	154.51	152.08	151.30	149.60	144.14
Glass and glassware, pressed or blown	113.83	114.96	114.12	111.38	111.38	110.30	109.76	111.79	111.79	109.34	111.92	110.70	111.37	106.25	102.21
Cement, hydraulic	128.79	131.65	138.22	132.39	133.76	132.61	134.82	131.87	132.19	132.51	130.94	126.98	129.79	124.42	121.30
Structural clay products	95.35	96.24	97.20	98.16	97.99	98.12	97.94	97.94	97.29	98.00	96.28	93.38	93.66	94.02	89.82
Pottery and related products	-------	101.63	102.36	100.15	100.44	98.50	95.94	99.00	98.95	98.80	97.91	97.66	97.91	95.12	93.53
Concrete, gypsum, and plaster products	112.44	114.48	116.42	121.38	121.76	122.94	120.87	120.87	118.10	116.95	113.62	108.62	110.33	113.08	108.32
Other stone and mineral products	-------	116.48	116.20	118.86	117.32	115.79	114.68	116.47	116.60	115.63	114.24	113.55	111.22	110.62	107.01
Primary metal industries	136.62	137.61	138.69	139.02	140.77	138.09	136.86	139.50	139.07	138.74	136.83	136.08	135.34	133.88	130.00
Blast furnace and basic steel products	141.20	141.20	143.37	144.84	147.80	145.85	147.03	147.68	146.97	146.56	143.56	141.69	140.24	140.90	138.43
Iron and steel foundries	128.59	131.33	130.42	130.90	129.73	126.69	121.13	128.01	127.58	128.90	128.60	128.46	127.01	125.72	119.84
Nonferrous smelting and refining	131.86	132.80	132.91	132.91	132.71	130.62	130.09	128.83	128.83	129.32	126.96	125.93	125.82	124.44	120.22
Nonferrous rolling, drawing, and extruding	136.34	138.47	138.97	136.47	138.22	135.83	133.55	137.20	136.14	134.90	134.20	134.81	135.86	130.07	122.26
Nonferrous foundries	121.42	122.77	122.22	121.67	123.26	118.02	114.80	119.29	118.86	118.16	117.59	117.17	118.43	113.55	110.54
Miscellaneous primary metal industries	153.47	154.26	154.70	153.12	153.91	146.89	141.86	147.74	149.64	146.03	149.80	150.82	148.14	143.09	133.77
	Average weekly hours														
Stone, clay, and glass products	41.1	41.6	41.8	42.2	42.2	42.4	42.0	42.5	42.3	42.1	42.1	41.4	41.6	42.0	41.7
Flat glass	-------	42.8	44.0	43.8	43.5	42.7	40.0	42.3	42.2	42.7	42.8	42.6	42.5	42.5	41.9
Glass and glassware, pressed or blown	40.8	41.5	41.2	40.8	40.8	40.7	40.5	41.1	41.1	40.2	41.3	41.0	41.4	40.4	40.4
Cement, hydraulic	40.5	41.4	42.4	41.5	41.8	41.7	42.0	41.6	41.7	41.8	41.7	40.7	41.6	41.2	41.4
Structural clay products	39.4	40.1	40.5	40.9	41.0	41.4	41.5	41.5	41.4	41.7	41.5	40.6	40.9	41.6	41.2
Pottery and related products	-------	39.7	40.3	39.9	39.7	39.4	39.0	39.6	39.9	40.0	39.8	39.7	39.8	39.8	39.8
Concrete, gypsum, and plaster products	41.8	42.4	42.8	44.3	44.6	45.2	45.1	45.1	44.4	44.3	43.7	42.1	42.6	44.0	43.5
Other stone and mineral products	-------	41.6	41.5	42.3	41.9	41.8	41.7	42.2	42.4	42.2	42.0	41.9	41.5	41.9	41.8
Primary metal industries	41.4	41.7	41.9	42.0	42.4	42.1	41.6	42.4	42.4	42.3	42.1	42.0	41.9	42.1	41.8
Blast furnace and basic steel products	40.0	40.0	40.5	40.8	41.4	41.2	41.3	41.6	41.4	41.4	40.9	40.6	40.3	41.2	41.2
Iron and steel foundries	42.3	43.2	42.9	43.2	43.1	42.8	41.2	43.1	43.1	43.4	43.3	43.4	43.2	43.5	42.8
Nonferrous smelting and refining	42.4	42.7	42.6	42.6	42.4	42.0	42.1	42.1	42.1	42.4	41.9	41.7	41.8	41.9	41.6
Nonferrous rolling, drawing, and extruding	43.7	44.1	44.4	43.6	44.3	44.1	43.5	44.4	44.2	43.8	44.0	44.2	44.4	43.5	42.6
Nonferrous foundries	41.3	41.9	42.0	42.1	42.8	42.0	41.0	42.3	42.3	42.2	42.3	42.3	42.6	41.9	41.4
Miscellaneous primary metal industries	43.6	43.7	43.7	43.5	43.6	42.7	41.6	43.2	43.5	42.7	43.8	44.1	43.7	43.1	42.2
	Average hourly earnings														
Stone, clay, and glass products	$2.77	$2.77	$2.77	$2.76	$2.75	$2.73	$2.71	$2.72	$2.71	$2.71	$2.68	$2.67	$2.66	$2.62	$2.53
Flat glass	-------	3.64	3.65	3.65	3.54	3.57	3.54	3.57	3.61	3.65	3.61	3.57	3.56	3.52	3.44
Glass and glassware, pressed or blown	2.79	2.77	2.77	2.73	2.73	2.71	2.71	2.72	2.72	2.72	2.71	2.70	2.69	2.63	2.53
Cement, hydraulic	3.18	3.18	3.26	3.19	3.20	3.18	3.21	3.17	3.17	3.17	3.14	3.12	3.12	3.02	2.93
Structural clay products	2.42	2.40	2.40	2.40	2.39	2.37	2.36	2.36	2.35	2.35	2.32	2.30	2.29	2.26	2.18
Pottery and related products	-------	2.56	2.54	2.51	2.53	2.50	2.46	2.50	2.48	2.47	2.46	2.46	2.46	2.39	2.35
Concrete, gypsum, and plaster products	2.69	2.70	2.72	2.74	2.73	2.72	2.68	2.68	2.66	2.64	2.60	2.58	2.59	2.57	2.49
Other stone and mineral products	-------	2.80	2.80	2.81	2.80	2.77	2.75	2.76	2.75	2.74	2.72	2.71	2.68	2.64	2.56
Primary metal industries	3.30	3.30	3.31	3.31	3.32	3.28	3.29	3.29	3.28	3.28	3.25	3.24	3.23	3.18	3.11
Blast furnace and basic steel products	3.53	3.53	3.54	3.55	3.57	3.54	3.56	3.55	3.55	3.54	3.51	3.49	3.48	3.42	3.36
Iron and steel foundries	3.04	3.04	3.04	3.03	3.01	2.96	2.94	2.97	2.96	2.97	2.97	2.96	2.94	2.89	2.80
Nonferrous smelting and refining	3.11	3.11	3.12	3.12	3.13	3.11	3.09	3.06	3.06	3.05	3.03	3.02	3.01	2.97	2.89
Nonferrous rolling, drawing, and extruding	3.12	3.14	3.13	3.13	3.12	3.08	3.07	3.09	3.08	3.08	3.05	3.05	3.06	2.99	2.87
Nonferrous foundries	2.94	2.93	2.91	2.89	2.88	2.81	2.80	2.82	2.81	2.80	2.78	2.77	2.78	2.71	2.67
Miscellaneous primary metal industries	3.52	3.53	3.54	3.52	3.53	3.44	3.41	3.42	3.44	3.42	3.42	3.42	3.39	3.32	3.17

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Durable goods—Continued															
Average weekly earnings															
Fabricated metal products	$122.77	$124.10	$123.09	$124.26	$124.84	$121.26	$119.42	$121.70	$121.84	$119.99	$119.85	$119.00	$118.02	$116.20	$111.76
Metal cans	136.69	138.55	136.92	136.73	143.66	148.40	151.52	142.68	142.03	138.14	135.36	135.14	133.66	137.49	131.82
Cutlery, hand tools, and general hardware	116.18	117.03	116.20	116.06	116.34	113.15	109.76	113.15	114.81	113.85	113.98	113.57	112.88	111.22	107.64
Heating equipment and plumbing fixtures	109.02	112.06	110.95	113.30	114.40	112.06	106.13	110.70	110.70	108.40	108.00	108.27	105.60	105.06	102.91
Fabricated structural metal products	123.31	125.40	123.09	123.54	123.83	121.11	118.56	121.13	120.27	117.73	117.03	116.76	116.48	114.26	110.27
Screw machine products, bolts, etc	132.28	133.32	132.44	130.79	130.92	125.24	121.67	128.25	128.25	126.66	128.37	127.18	126.17	120.73	113.85
Metal stampings	130.52	133.22	134.78	137.34	138.85	131.70	129.74	131.58	133.36	132.75	131.89	130.29	130.11	128.60	123.41
Coating, engraving, and allied services	108.21	109.20	107.49	108.10	110.59	108.29	105.73	107.19	106.85	105.00	105.84	104.92	102.18	100.43	95.58
Miscellaneous fabricated wire products	112.29	112.98	112.98	112.44	113.10	110.20	110.04	111.25	111.51	108.58	108.26	109.56	107.01	104.92	99.46
Miscellaneous fabricated metal products	122.54	120.38	119.42	120.56	121.13	118.58	117.03	120.56	120.56	117.88	117.87	116.34	115.37	113.42	108.65
Machinery	137.66	138.60	136.78	136.34	136.53	133.55	131.89	135.83	135.83	134.03	134.95	133.76	132.41	127.58	121.69
Engines and turbines	-------	154.26	144.33	138.69	143.81	143.72	141.53	142.76	146.06	144.86	141.57	137.99	135.85	133.44	127.30
Farm machinery and equipment	-------	132.48	128.30	130.29	131.57	127.31	124.85	130.82	131.63	131.94	133.06	130.54	129.02	121.72	118.82
Construction and related machinery	134.71	134.71	135.45	135.14	135.33	132.99	132.25	134.85	133.67	132.50	133.42	132.37	130.16	126.39	120.25
Metalworking machinery and equipment	156.03	156.37	154.90	152.97	153.05	148.46	149.70	155.04	156.37	153.45	153.64	152.52	150.75	144.37	137.06
Special industry machinery	129.80	132.90	129.65	128.92	129.80	126.14	122.41	127.74	126.28	124.55	125.24	124.36	124.24	120.22	114.86
General industrial machinery	136.90	138.92	136.66	137.46	138.40	135.39	131.46	135.69	134.64	132.24	132.54	132.41	131.67	126.56	120.83
Office, computing and accounting machines	133.54	133.11	131.75	132.06	131.02	127.80	129.36	131.44	130.59	128.94	132.13	133.06	133.80	127.20	120.60
Service industry machines	117.26	119.26	118.85	118.14	115.64	115.37	114.12	117.74	115.23	115.79	115.92	115.51	113.44	112.19	107.16
Miscellaneous machinery	131.86	132.61	132.76	132.02	130.83	127.16	124.85	128.32	128.32	127.30	127.87	127.43	125.97	120.93	115.83
Average weekly hours															
Fabricated metal products	41.9	42.5	42.3	42.7	42.9	42.4	41.9	42.7	42.6	42.1	42.2	42.2	42.0	42.1	41.7
Metal cans	41.8	42.5	42.0	42.2	43.8	44.7	45.5	43.9	43.7	42.9	42.3	42.1	41.9	43.1	42.8
Cutlery, hand tools, and general hardware	41.2	41.5	41.5	41.6	41.7	41.6	40.5	41.6	41.9	41.4	41.6	41.6	41.5	41.5	41.4
Heating equipment and plumbing fixtures	39.5	40.6	40.2	41.2	41.3	41.2	39.9	41.0	40.7	40.0	40.0	40.1	39.7	40.1	40.2
Fabricated structural metal products	41.8	42.8	42.3	42.6	42.7	42.2	41.6	42.5	42.2	41.6	41.5	41.7	41.6	41.7	41.3
Screw machine products, bolts, etc	45.3	45.5	45.2	45.1	45.3	44.1	43.3	45.0	45.0	44.6	45.2	45.1	44.9	43.9	42.8
Metal stampings	41.7	42.7	43.2	43.6	43.8	42.9	42.4	43.0	43.3	43.1	43.1	43.0	42.8	43.3	43.0
Coating, engraving, and allied services	41.3	42.0	41.5	41.9	42.7	42.3	41.3	42.2	41.9	41.5	42.0	41.8	41.2	41.5	41.2
Miscellaneous fabricated wire products	41.9	42.0	42.0	41.8	42.2	41.9	42.0	42.3	42.4	41.6	41.8	42.3	41.8	41.8	41.1
Miscellaneous fabricated metal products	42.4	41.8	41.9	42.3	42.5	42.2	41.5	42.6	42.6	42.1	42.4	42.0	41.8	41.7	41.0
Machinery	43.7	44.0	43.7	43.7	43.9	43.5	43.1	44.1	44.1	43.8	44.1	44.0	43.7	43.1	42.4
Engines and turbines	-------	44.2	42.7	41.4	42.8	42.9	42.5	43.0	43.6	43.5	42.9	42.2	41.8	41.7	40.8
Farm machinery and equipment	-------	41.4	40.6	41.1	41.9	41.2	40.8	42.2	42.6	42.7	43.2	42.8	42.3	41.4	41.4
Construction and related machinery	42.9	42.9	43.0	42.9	43.1	42.9	42.8	43.5	43.4	43.3	43.6	43.4	43.1	42.7	41.9
Metalworking machinery and equipment	46.3	46.4	46.1	45.8	46.1	45.4	45.5	46.7	47.1	46.5	46.7	46.5	46.1	45.4	44.5
Special industry machinery	44.0	44.9	44.1	44.0	44.3	43.8	42.8	44.2	44.0	43.7	44.1	44.1	43.9	43.4	42.7
General industrial machinery	43.6	44.1	43.8	44.2	44.5	44.1	43.1	44.2	44.0	43.5	43.6	43.7	43.6	42.9	42.1
Office, computing and accounting machines	42.8	42.8	42.5	42.6	42.4	41.9	42.0	42.4	42.4	42.0	42.9	43.2	43.3	42.4	41.3
Service industry machines	41.0	41.7	41.7	41.6	41.3	41.5	41.2	42.2	41.6	41.8	42.0	41.7	41.4	41.4	40.9
Miscellaneous machinery	44.1	44.5	44.7	44.6	44.5	44.0	43.5	44.4	44.4	44.2	44.4	44.4	44.2	43.5	42.9
Average hourly earnings															
Fabricated metal products	$2.93	$2.92	$2.91	$2.91	$2.91	$2.86	$2.85	$2.85	$2.86	$2.85	$2.84	$2.82	$2.81	$2.76	$2.68
Metal cans	3.27	3.26	3.26	3.24	3.28	3.32	3.33	3.25	3.25	3.22	3.20	3.21	3.19	3.19	3.08
Cutlery, hand tools, and general hardware	2.82	2.82	2.80	2.79	2.79	2.72	2.71	2.72	2.74	2.75	2.74	2.73	2.72	2.68	2.60
Heating equipment and plumbing fixtures	2.76	2.76	2.76	2.75	2.77	2.72	2.66	2.70	2.72	2.71	2.70	2.70	2.66	2.62	2.56
Fabricated structural metal products	2.95	2.93	2.91	2.90	2.90	2.87	2.85	2.85	2.85	2.83	2.82	2.80	2.80	2.74	2.67
Screw machine products, bolts, etc	2.92	2.93	2.93	2.90	2.89	2.84	2.81	2.85	2.85	2.84	2.84	2.82	2.81	2.75	2.66
Metal stampings	3.13	3.12	3.12	3.15	3.17	3.07	3.06	3.06	3.08	3.08	3.06	3.03	3.04	2.97	2.87
Coating, engraving, and allied services	2.62	2.60	2.59	2.58	2.59	2.56	2.56	2.54	2.55	2.53	2.52	2.51	2.48	2.42	2.32
Miscellaneous fabricated wire products	2.68	2.69	2.69	2.69	2.68	2.63	2.62	2.63	2.63	2.61	2.59	2.59	2.56	2.51	2.42
Miscellaneous fabricated metal products	2.89	2.88	2.85	2.85	2.85	2.81	2.82	2.83	2.83	2.80	2.78	2.77	2.76	2.72	2.65
Machinery	3.15	3.15	3.13	3.12	3.11	3.07	3.06	3.08	3.08	3.06	3.06	3.04	3.03	2.96	2.87
Engines and turbines	-------	3.49	3.38	3.35	3.36	3.35	3.33	3.32	3.35	3.33	3.30	3.27	3.25	3.20	3.12
Farm machinery and equipment	-------	3.20	3.16	3.17	3.14	3.09	3.06	3.10	3.09	3.09	3.08	3.05	3.05	2.94	2.87
Construction and related machinery	3.14	3.14	3.15	3.15	3.14	3.10	3.09	3.10	3.08	3.06	3.06	3.05	3.02	2.96	2.87
Metalworking machinery and equipment	3.37	3.37	3.36	3.34	3.32	3.27	3.29	3.32	3.32	3.30	3.29	3.28	3.27	3.18	3.08
Special industry machinery	2.95	2.96	2.94	2.93	2.93	2.88	2.86	2.89	2.87	2.85	2.84	2.82	2.83	2.77	2.69
General industrial machinery	3.14	3.15	3.12	3.11	3.11	3.07	3.05	3.07	3.06	3.04	3.04	3.03	3.02	2.95	2.87
Office, computing and accounting machines	3.12	3.11	3.10	3.10	3.09	3.05	3.08	3.10	3.08	3.07	3.08	3.08	3.09	3.00	2.92
Service industry machines	2.86	2.86	2.85	2.84	2.80	2.78	2.77	2.79	2.77	2.77	2.76	2.77	2.74	2.71	2.62
Miscellaneous machinery	2.99	2.98	2.97	2.96	2.94	2.89	2.87	2.89	2.89	2.88	2.88	2.87	2.85	2.78	2.70

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1965	1966												Annual average	
	Jan.[2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
	Average weekly earnings														
Manufacturing—Continued															
Durable goods—Continued															
Electrical equipment and supplies	$108.81	$110.42	$109.74	$109.86	$110.12	$107.68	$106.11	$108.62	$108.62	$107.68	$107.53	$108.05	$107.79	$105.78	$101.66
Electric distribution equipment	118.98	123.98	120.27	117.32	119.99	115.64	117.46	117.73	116.05	113.98	115.50	113.57	113.98	113.02	110.83
Electrical industrial apparatus	117.31	118.58	117.18	117.60	119.57	117.74	118.15	117.17	118.13	117.73	118.28	117.58	115.35	113.28	109.56
Household appliances	116.91	116.98	121.01	119.94	122.51	119.42	116.28	118.28	119.97	118.69	114.24	117.86	119.00	114.54	107.33
Electric lighting and wiring equipment	103.06	104.70	103.79	103.73	103.82	101.93	99.20	101.59	101.84	101.09	101.43	100.78	100.69	99.14	95.04
Radio and TV receiving sets	90.64	92.97	94.30	98.41	94.07	93.96	91.57	91.87	89.17	91.80	92.50	93.43	93.30	91.31	87.25
Communication equipment	124.86	124.91	122.60	122.18	122.22	118.37	117.33	119.81	120.51	118.82	120.25	121.25	121.11	116.47	112.07
Electronic components and accessories	92.57	92.46	91.60	92.00	91.66	91.03	89.27	93.02	92.21	91.35	91.80	92.25	91.39	88.88	86.18
Miscellaneous electrical equipment and supplies	120.54	126.12	127.02	124.62	122.43	115.14	114.34	117.79	117.79	118.03	117.50	120.35	118.66	115.36	108.67
Transportation equipment	141.10	146.03	145.52	146.63	144.84	139.35	137.94	140.25	139.07	141.47	140.06	140.71	142.46	137.71	130.09
Motor vehicles and equipment	142.45	150.38	151.71	154.43	151.87	142.27	140.42	143.40	141.54	149.02	144.57	146.02	148.14	147.63	138.03
Aircraft and parts	-------	146.26	145.92	144.05	143.52	144.09	142.23	143.22	143.44	139.43	141.48	142.14	143.00	131.88	125.03
Ship and boat building and repairing	135.56	136.73	131.02	134.18	129.60	129.34	130.29	132.40	128.75	128.65	130.10	129.58	128.86	121.50	121.10
Railroad equipment	-------	141.23	141.80	141.04	136.15	135.74	136.68	133.32	137.94	138.20	132.44	133.82	135.71	129.44	127.08
Other transportation equipment	-------	94.28	94.62	97.20	99.14	97.27	93.30	96.87	96.96	95.20	95.20	91.42	89.47	92.69	93.89
	Average weekly hours														
Electrical equipment and supplies	40.6	41.2	41.1	41.3	41.4	41.1	40.5	41.3	41.3	41.1	41.2	41.4	41.3	41.0	40.5
Electric distribution equipment	41.6	42.9	42.2	41.9	42.7	41.9	42.1	42.5	42.2	41.6	42.0	41.6	41.6	41.4	41.2
Electrical industrial apparatus	41.6	42.2	42.0	42.0	42.4	42.2	42.5	42.3	42.8	42.5	42.7	42.6	42.1	41.8	41.5
Household appliances	39.9	40.2	41.3	41.5	42.1	41.9	40.8	41.5	41.8	41.5	40.8	41.5	41.9	41.2	40.5
Electric lighting and wiring equipment	40.1	40.9	40.7	41.0	41.2	41.1	40.0	40.8	40.9	40.6	40.9	40.8	40.6	40.8	40.1
Radio and TV receiving sets	38.9	39.9	40.3	41.7	40.2	40.5	39.3	39.6	38.6	39.4	39.7	40.1	39.7	39.7	39.3
Communication equipment	41.9	42.2	41.7	41.7	42.0	41.1	40.6	41.6	41.7	41.4	41.9	42.1	42.2	41.3	40.9
Electronic components and accessories	39.9	40.2	40.0	40.0	40.2	40.1	39.5	40.8	40.8	40.6	40.8	41.0	40.8	40.4	39.9
Miscellaneous electrical equipment and supplies	41.0	41.9	42.2	42.1	41.5	40.4	39.7	40.9	40.9	40.7	40.8	41.5	41.2	41.2	40.7
Transportation equipment	41.5	42.7	42.8	43.0	42.6	42.1	41.8	42.5	42.4	43.0	42.7	42.9	43.3	42.9	42.1
Motor vehicles and equipment	40.7	42.6	43.1	43.5	42.9	41.6	41.3	42.3	42.0	43.7	42.9	43.2	43.7	44.2	43.0
Aircraft and parts	-------	43.4	43.3	43.0	43.1	43.4	43.1	43.4	43.6	42.9	43.4	43.6	44.0	42.0	41.4
Ship and boat building and repairing	42.1	42.2	41.2	41.8	40.5	40.8	41.1	41.9	41.4	41.5	41.7	41.4	41.3	40.5	40.5
Railroad equipment	-------	40.7	41.1	41.0	40.4	40.4	40.8	40.4	41.3	41.5	40.5	40.8	41.0	40.2	40.6
Other transportation equipment	-------	38.8	39.1	40.0	40.8	40.7	39.2	40.7	40.4	40.0	40.0	38.9	38.9	40.3	41.0
	Average hourly earnings														
Electrical equipment and supplies	$2.68	$2.68	$2.67	$2.66	$2.66	$2.62	$2.63	$2.63	$2.62	$2.61	$2.61	$2.61	$2.62	$2.58	$2.51
Electric distribution equipment	2.86	2.89	2.85	2.80	2.81	2.79	2.77	2.75	2.74	2.75	2.73	2.74	2.74	2.73	2.69
Electrical industrial apparatus	2.82	2.81	2.79	2.80	2.82	2.78	2.77	2.76	2.77	2.77	2.76	2.74	2.75	2.71	2.64
Household appliances	2.93	2.91	2.93	2.89	2.91	2.85	2.85	2.87	2.86	2.80	2.84	2.84	2.86	2.78	2.65
Electric lighting and wiring equipment	2.57	2.56	2.55	2.53	2.52	2.48	2.49	2.49	2.49	2.48	2.47	2.48	2.48	2.43	2.37
Radio and TV receiving sets	2.33	2.33	2.34	2.36	2.34	2.33	2.32	2.31	2.33	2.33	2.33	2.35	2.35	2.30	2.22
Communication equipment	2.98	2.96	2.94	2.93	2.91	2.89	2.88	2.89	2.87	2.87	2.88	2.87	2.87	2.82	2.74
Electronic components and accessories	2.32	2.30	2.29	2.30	2.28	2.26	2.28	2.26	2.25	2.25	2.25	2.24	2.24	2.20	2.16
Miscellaneous electrical equipment and supplies	2.94	3.01	3.01	2.96	2.95	2.88	2.88	2.88	2.90	2.88	2.90	2.88	2.88	2.80	2.67
Transportation equipment	3.40	3.42	3.40	3.41	3.40	3.30	3.30	3.28	3.29	3.28	3.28	3.29	3.30	3.21	3.09
Motor vehicles and equipment	3.50	3.53	3.52	3.55	3.54	3.40	3.39	3.37	3.41	3.37	3.38	3.39	3.43	3.34	3.21
Aircraft and parts	-------	3.37	3.37	3.35	3.33	3.30	3.30	3.29	3.25	3.26	3.26	3.25	3.24	3.14	3.02
Ship and boat building and repairing	3.22	3.24	3.18	3.21	3.20	3.17	3.16	3.11	3.10	3.12	3.13	3.12	3.08	3.00	2.99
Railroad equipment	-------	3.47	3.45	3.44	3.37	3.35	3.30	3.34	3.33	3.27	3.28	3.31	3.30	3.22	3.13
Other transportation equipment	-------	2.43	2.42	2.43	2.43	2.38	2.38	2.40	2.38	2.38	2.35	2.30	2.35	2.30	2.29

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
	Average weekly earnings														
Manufacturing—Continued															
Durable goods—Continued															
Instruments and related products	$113.71	$115.50	$114.66	$114.93	$114.78	$112.17	$111.90	$113.94	$113.79	$112.71	$113.10	$112.67	$111.72	$108.47	$103.63
Engineering and scientific instruments		136.97	133.49	133.18	133.06	128.59	131.89	131.82	131.40	130.28	133.18	131.70	132.25	125.33	119.66
Mechanical measuring and control devices	114.96	116.06	115.92	116.20	115.08	112.74	112.19	115.60	115.75	114.63	114.48	114.06	114.06	108.62	103.79
Optical and ophthalmic goods	105.66	104.83	103.91	102.26	103.83	101.26	101.92	102.66	102.48	97.68	101.88	101.22	99.84	98.65	94.81
Ophthalmic goods		93.79	94.19	92.57	94.07	91.58	93.25	93.30	92.48	88.44	92.06	91.24	90.17	89.40	86.07
Surgical, medical, and dental equipment	93.85	95.91	96.46	96.12	95.71	93.50	91.94	95.30	94.89	93.38	93.89	92.57	93.20	90.23	88.22
Photographic equipment and supplies		135.65	133.73	136.78	136.03	132.25	131.58	133.67	133.90	134.29	131.63	132.85	129.86	127.84	120.38
Watches and clocks		91.53	91.69	91.65	92.48	92.70	91.35	91.17	89.91	90.50	91.62	91.02	89.35	87.85	84.50
Miscellaneous manufacturing industries	93.20	91.60	90.45	90.09	89.20	88.22	86.24	88.62	88.62	87.74	89.28	88.84	87.52	85.39	82.37
Jewelry, silverware, and plated ware	104.81	108.89	109.48	108.63	105.42	102.51	95.35	100.94	100.28	100.04	100.19	97.27	96.63	95.53	91.58
Toys, amusement, and sporting goods		80.52	79.60	79.60	78.41	79.00	77.60	78.80	78.40	78.40	79.59	78.59	77.20	76.44	74.30
Pens, pencils, office and art materials		90.39	90.45	89.38	88.07	86.43	84.02	87.48	86.05	84.42	85.44	84.80	82.29	82.82	78.80
Costume jewelry, buttons, and notions		81.74	79.54	80.98	81.18	80.00	78.56	82.42	81.20	79.37	81.81	81.81	80.17	77.62	73.90
Other manufacturing industries	97.51	97.84	97.84	97.28	96.40	95.04	93.62	95.04	95.75	94.56	95.47	95.88	94.24	92.46	89.60
Musical instruments and parts		104.08	104.75	103.42	99.39	99.63	97.28	100.45	99.39	98.42	99.53	102.18	97.20	97.75	94.66
	Average weekly hours														
Instruments and related products	41.5	42.0	42.0	42.1	42.2	41.7	41.6	42.2	42.3	41.9	42.2	42.2	42.0	41.4	40.8
Engineering and scientific instruments		43.9	43.2	43.1	43.2	42.3	43.1	42.8	42.8	42.3	43.1	42.9	42.8	41.5	40.7
Mechanical measuring and control devices	41.5	41.9	42.0	42.1	42.0	41.6	41.4	42.5	42.4	42.3	42.4	42.4	42.4	41.3	40.7
Optical and ophthalmic goods	41.6	41.6	41.4	41.4	41.7	41.5	41.6	41.9	42.0	40.7	42.1	42.0	41.6	41.8	41.4
Ophthalmic goods		40.6	40.6	40.6	40.9	40.7	40.9	41.1	41.1	40.2	41.1	41.1	40.8	41.2	40.6
Surgical, medical, and dental equipment	39.6	40.3	40.7	40.9	40.9	40.3	39.8	40.9	40.9	40.6	41.0	40.6	40.7	40.1	40.1
Photographic equipment and supplies		43.2	43.0	43.7	43.6	42.8	43.0	43.4	43.9	43.6	43.3	43.7	43.0	42.9	41.8
Watches and clocks		40.5	41.3	41.1	41.1	41.2	40.6	40.7	40.5	40.4	40.9	41.0	40.8	40.3	39.3
Miscellaneous manufacturing industries	40.0	40.0	40.2	40.4	40.0	40.1	39.2	40.1	40.1	39.7	40.4	40.2	39.6	39.9	39.6
Jewelry, silverware, and plated ware	41.1	42.7	42.6	42.6	42.0	41.5	39.4	41.2	41.1	41.0	41.4	40.7	40.6	41.0	40.7
Toys, amusement, and sporting goods		38.9	40.0	40.0	39.4	39.7	38.8	39.4	39.2	39.2	39.4	39.1	38.6	39.2	38.9
Pens, pencils, office and art materials		40.9	41.3	41.0	40.4	40.2	38.9	40.5	40.4	40.2	40.3	40.0	39.0	40.4	39.4
Costume jewelry, buttons, and notions		39.3	38.8	39.5	39.6	39.8	38.7	40.4	40.2	39.1	40.3	40.3	39.3	39.6	39.1
Other manufacturing industries	39.8	40.1	40.1	40.2	40.0	40.1	39.5	40.1	40.4	39.9	40.8	40.8	40.1	40.2	40.0
Musical instruments and parts		41.8	41.9	41.7	40.9	41.0	40.2	41.0	40.9	40.5	41.3	42.4	40.5	40.9	40.8
	Average hourly earnings														
Instruments and related products	$2.74	$2.75	$2.73	$2.73	$2.72	$2.69	$2.69	$2.70	$2.69	$2.69	$2.68	$2.67	$2.66	$2.62	$2.54
Engineering and scientific instruments		3.12	3.09	3.09	3.08	3.04	3.06	3.08	3.07	3.08	3.09	3.07	3.09	3.02	2.94
Mechanical measuring and control devices	2.77	2.77	2.76	2.76	2.74	2.71	2.71	2.72	2.73	2.71	2.70	2.69	2.69	2.63	2.55
Optical and ophthalmic goods	2.54	2.52	2.51	2.47	2.49	2.44	2.45	2.45	2.44	2.40	2.42	2.41	2.40	2.36	2.29
Ophthalmic goods		2.31	2.32	2.28	2.30	2.25	2.28	2.27	2.25	2.20	2.24	2.22	2.21	2.17	2.12
Surgical, medical, and dental equipment	2.37	2.38	2.37	2.35	2.34	2.32	2.31	2.33	2.32	2.30	2.29	2.28	2.29	2.25	2.20
Photographic equipment and supplies		3.14	3.11	3.13	3.12	3.09	3.06	3.08	3.05	3.08	3.04	3.04	3.02	2.98	2.88
Watches and clocks		2.26	2.22	2.23	2.25	2.25	2.25	2.24	2.22	2.24	2.24	2.22	2.19	2.18	2.15
Miscellaneous manufacturing industries	2.33	2.29	2.25	2.23	2.23	2.20	2.20	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.08
Jewelry, silverware, and plated ware	2.55	2.55	2.57	2.55	2.51	2.47	2.42	2.45	2.44	2.44	2.42	2.39	2.38	2.33	2.25
Toys, amusement, and sporting goods		2.07	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.02	2.01	2.00	1.95	1.91
Pens, pencils, office and art materials		2.21	2.19	2.18	2.18	2.15	2.16	2.16	2.13	2.10	2.12	2.12	2.11	2.05	2.00
Costume jewelry, buttons, and notions		2.08	2.05	2.05	2.05	2.01	2.03	2.04	2.02	2.03	2.03	2.03	2.04	1.96	1.89
Other manufacturing industries	2.45	2.44	2.44	2.42	2.41	2.37	2.37	2.37	2.37	2.37	2.34	2.35	2.35	2.30	2.24
Musical instruments and parts		2.49	2.50	2.48	2.43	2.43	2.42	2.45	2.43	2.43	2.41	2.41	2.40	2.39	2.32

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Manufacturing—Continued															
Nondurable goods															
Food and kindred products	$105.41	$106.14	$104.90	$104.08	$104.92	$103.34	$105.59	$104.24	$103.89	$102.21	$101.66	$101.59	$101.34	$99.87	$97.17
Meat products	115.23	116.20	115.35	113.28	114.78	108.79	109.74	109.86	108.53	106.27	105.73	106.00	108.53	107.27	105.98
Dairy products	111.14	111.25	111.14	110.30	110.93	109.23	112.92	110.68	108.20	107.52	107.26	106.59	107.01	105.08	102.12
Canned and preserved food, except meats	-------	82.08	79.93	82.39	86.93	86.71	82.58	80.89	84.50	83.11	81.09	82.18	79.54	78.60	75.66
Grain mill products	120.94	123.40	122.94	124.47	124.55	118.42	120.38	118.22	114.04	113.36	114.40	115.00	114.66	113.40	109.07
Bakery products	101.79	104.28	104.54	105.99	106.11	106.08	106.71	106.34	104.23	102.66	101.75	101.85	101.35	101.40	97.12
Sugar	-------	111.02	110.50	101.12	119.23	121.54	127.75	121.84	120.41	117.42	119.39	116.48	105.57	110.33	106.57
Confectionery and related products	88.62	88.29	87.60	88.44	89.06	89.06	87.36	87.91	87.02	84.75	85.97	84.50	84.10	83.53	79.98
Beverages	118.37	120.66	121.29	119.66	118.73	119.97	130.23	121.67	117.33	117.74	115.37	114.00	113.43	114.09	109.89
Miscellaneous food and kindred products	103.17	105.11	104.92	104.25	104.55	102.41	101.50	102.24	101.64	99.84	99.30	101.44	99.17	98.79	96.25
Tobacco manufactures	84.80	88.29	81.24	81.93	83.41	82.68	87.23	88.55	86.94	86.49	84.64	87.91	82.30	79.21	75.66
Cigarettes	-------	112.47	100.77	105.72	106.23	106.11	104.72	106.92	103.45	105.57	102.80	111.25	101.38	97.27	93.45
Cigars	-------	68.58	68.24	66.41	64.61	64.25	63.71	65.12	66.33	65.28	66.15	66.15	64.05	63.95	64.08
Textile mill products	81.40	82.40	83.21	83.20	83.38	83.36	81.76	84.35	81.45	79.90	81.22	81.22	79.84	78.17	73.39
Cotton broad woven fabrics	86.68	86.86	87.29	86.46	87.06	86.23	85.63	89.85	83.38	82.64	84.15	84.97	84.39	80.28	74.34
Silk and synthetic broad woven fabrics	83.43	85.46	87.11	86.70	87.31	89.35	89.35	87.87	87.71	85.14	86.68	86.24	84.83	83.90	79.24
Weaving and finishing broad woolens	86.32	87.78	85.68	86.53	87.78	88.60	88.39	90.90	89.76	87.03	87.23	87.44	85.80	83.69	76.86
Narrow fabrics and small wares	81.32	81.34	81.16	82.15	81.90	81.25	80.48	81.64	79.27	78.47	79.52	79.10	77.38	75.99	73.03
Knitting	71.25	70.69	72.58	73.71	72.93	74.24	70.27	72.31	72.31	68.63	70.59	69.87	68.02	68.29	65.45
Finishing textiles, except wool and knit	90.71	93.53	92.66	92.66	91.59	90.74	89.03	94.17	91.54	91.54	91.94	90.87	87.96	85.85	81.90
Floor covering	-------	83.40	86.88	86.25	86.05	85.43	80.39	83.18	80.93	80.15	81.41	82.41	81.25	81.51	76.26
Yarn and thread	74.15	75.67	77.42	78.17	79.05	79.00	78.07	78.94	76.68	76.50	76.79	76.72	76.72	73.70	66.99
Miscellaneous textile goods	94.53	93.46	96.10	96.11	95.90	93.95	92.65	95.25	94.61	91.59	92.02	92.23	90.95	88.20	83.63
Average weekly hours															
Food and kindred products	40.7	41.3	41.3	41.3	41.8	41.5	41.9	41.2	40.9	40.4	40.5	40.8	40.7	41.1	41.0
Meat products	41.3	42.1	42.1	41.8	42.2	40.9	41.1	41.3	40.8	40.1	39.6	40.0	40.8	41.1	41.4
Dairy products	42.1	42.3	42.1	42.1	42.5	42.5	43.6	42.9	42.1	42.0	41.9	41.8	41.8	42.2	42.2
Canned and preserved food, except meats	-------	38.9	38.8	39.8	41.2	40.9	39.7	37.8	39.3	38.3	38.8	39.7	38.8	39.3	38.8
Grain mill products	44.3	45.2	45.2	46.1	46.3	45.2	46.3	46.0	44.2	43.6	44.0	44.4	44.1	45.0	44.7
Bakery products	39.0	39.8	39.9	40.3	40.5	40.8	41.2	40.9	40.4	40.1	39.9	40.1	39.9	40.4	40.3
Sugar	-------	43.2	45.1	39.5	41.4	42.2	43.6	42.9	42.1	41.2	43.1	43.3	41.4	42.6	42.8
Confectionery and related products	40.1	40.5	40.0	40.2	40.3	40.3	39.0	39.6	39.2	38.7	39.8	39.3	39.3	39.4	39.4
Beverages	40.4	40.9	40.7	40.7	40.8	41.8	44.6	42.1	40.6	40.6	40.2	40.0	39.8	40.6	40.4
Miscellaneous food and kindred products	41.6	42.9	43.0	42.9	42.5	41.8	41.6	41.9	42.0	41.6	41.9	42.8	42.2	42.4	42.4
Tobacco manufactures	38.2	40.5	38.5	39.2	40.1	38.1	37.6	38.5	38.3	38.1	38.3	39.6	38.1	37.9	38.8
Cigarettes	-------	41.5	37.6	39.3	39.2	39.3	38.5	39.6	38.6	39.1	38.5	40.9	38.4	37.7	39.1
Cigars	-------	38.1	37.7	37.1	36.5	36.3	36.2	37.0	37.9	37.3	37.8	37.8	36.6	37.4	38.6
Textile mill products	40.7	41.2	41.4	41.6	41.9	42.1	41.5	42.6	42.2	41.4	42.3	42.3	41.8	41.8	41.0
Cotton broad woven fabrics	42.7	43.0	43.0	42.8	43.1	42.9	42.6	44.7	43.2	42.6	43.6	43.8	43.5	42.7	42.0
Silk and synthetic broad woven fabrics	41.3	42.1	42.7	42.5	42.8	43.8	43.8	43.5	44.3	43.0	44.0	44.0	43.5	43.7	43.3
Weaving and finishing broad woolens	41.3	42.0	40.8	41.4	42.0	42.8	42.7	43.7	44.0	43.3	43.4	43.5	42.9	42.7	41.1
Narrow fabrics and small wares	41.7	41.5	41.2	41.7	42.0	42.1	41.7	42.3	41.5	41.3	42.3	42.3	41.6	41.3	40.8
Knitting	37.5	37.6	38.4	39.0	39.0	39.7	38.4	39.3	39.3	37.5	39.0	38.6	38.0	38.8	38.5
Finishing textiles, except wool and knit	41.8	43.1	42.7	42.9	42.8	42.6	41.8	43.8	43.8	43.8	44.2	43.9	42.7	42.5	42.0
Floor covering	-------	41.7	42.8	42.7	42.6	42.5	40.6	41.8	41.5	41.1	42.4	42.7	42.1	42.9	41.9
Yarn and thread	40.3	40.9	41.4	41.8	42.5	42.7	42.2	42.9	42.6	42.5	42.9	43.1	43.1	42.6	41.1
Miscellaneous textile goods	42.2	42.1	42.9	43.1	43.2	42.9	42.5	43.1	43.5	42.6	43.0	43.1	42.7	42.2	41.4
Average hourly earnings															
Food and kindred products	$2.59	$2.57	$2.54	$2.52	$2.51	$2.49	$2.52	$2.53	$2.54	$2.53	$2.51	$2.49	$2.49	$2.43	$2.37
Meat products	2.79	2.76	2.74	2.71	2.72	2.66	2.67	2.66	2.66	2.65	2.67	2.65	2.66	2.61	2.56
Dairy products	2.64	2.63	2.64	2.62	2.61	2.57	2.59	2.58	2.57	2.56	2.56	2.55	2.56	2.49	2.42
Canned and preserved food, except meats	-------	2.11	2.06	2.07	2.11	2.12	2.08	2.14	2.15	2.17	2.09	2.07	2.05	2.00	1.95
Grain mill products	2.73	2.73	2.72	2.70	2.69	2.62	2.60	2.57	2.58	2.60	2.60	2.59	2.60	2.52	2.44
Bakery products	2.61	2.62	2.62	2.63	2.62	2.60	2.59	2.60	2.58	2.56	2.55	2.54	2.54	2.51	2.41
Sugar	-------	2.57	2.45	2.56	2.88	2.88	2.93	2.84	2.86	2.85	2.77	2.69	2.55	2.59	2.49
Confectionery and related products	2.21	2.18	2.19	2.20	2.21	2.21	2.24	2.22	2.22	2.19	2.16	2.15	2.14	2.12	2.03
Beverages	2.93	2.95	2.98	2.94	2.91	2.87	2.92	2.89	2.89	2.90	2.87	2.85	2.85	2.81	2.72
Miscellaneous food and kindred products	2.48	2.45	2.44	2.43	2.46	2.45	2.44	2.44	2.42	2.40	2.37	2.37	2.35	2.33	2.27
Tobacco manufactures	2.22	2.18	2.11	2.09	2.08	2.17	2.32	2.30	2.27	2.27	2.21	2.22	2.16	2.09	1.95
Cigarettes	-------	2.71	2.68	2.69	2.71	2.70	2.72	2.70	2.68	2.70	2.67	2.72	2.64	2.58	2.39
Cigars	-------	1.80	1.81	1.79	1.77	1.77	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.71	1.66
Textile mill products	2.00	2.00	2.01	2.00	1.99	1.98	1.97	1.98	1.93	1.93	1.92	1.92	1.91	1.87	1.79
Cotton broad woven fabrics	2.03	2.02	2.03	2.02	2.02	2.01	2.01	2.01	1.93	1.94	1.93	1.94	1.94	1.88	1.77
Silk and synthetic broad woven fabrics	2.02	2.03	2.04	2.04	2.04	2.04	2.04	2.02	1.98	1.98	1.97	1.96	1.95	1.92	1.83
Weaving and finishing broad woolens	2.09	2.09	2.10	2.09	2.09	2.07	2.07	2.08	2.04	2.01	2.01	2.01	2.00	1.96	1.87
Narrow fabrics and smallwares	1.95	1.96	1.97	1.97	1.95	1.93	1.93	1.93	1.91	1.90	1.88	1.87	1.86	1.84	1.79
Knitting	1.90	1.88	1.89	1.89	1.87	1.87	1.83	1.84	1.84	1.83	1.81	1.81	1.79	1.76	1.70
Finishing textiles, except wool and knit	2.17	2.17	2.17	2.16	2.14	2.13	2.13	2.15	2.09	2.09	2.08	2.07	2.06	2.02	1.95
Floor covering	-------	2.00	2.03	2.02	2.02	2.01	1.98	1.99	1.95	1.95	1.92	1.93	1.93	1.90	1.82
Yarn and thread	1.84	1.85	1.87	1.87	1.86	1.85	1.85	1.84	1.80	1.80	1.79	1.78	1.78	1.73	1.63
Miscellaneous textile goods	2.24	2.22	2.24	2.23	2.22	2.19	2.18	2.21	2.18	2.15	2.14	2.14	2.13	2.09	2.02

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Manufacturing—Continued															
Nondurable goods—Continued															
Apparel and related products	$69.65	$69.87	$70.25	$70.64	$67.83	$70.11	$67.88	$68.63	$68.26	$67.51	$69.37	$68.81	$66.05	$66.61	$64.26
Men's and boys' suits and coats	85.33	87.32	86.94	87.17	84.83	87.19	85.03	85.86	85.69	83.54	85.25	85.69	83.76	81.86	76.23
Men's and boys' furnishings	61.59	61.50	60.64	59.84	59.36	60.10	58.56	59.78	58.30	57.67	59.09	59.31	58.46	57.90	56.09
Women's, misses', and juniors' outerwear	71.23	71.02	71.44	72.21	68.67	73.56	71.90	71.34	71.34	71.34	73.63	72.38	66.73	68.68	66.78
Women's and children's undergarments	63.71	62.97	65.98	66.12	64.18	63.92	61.99	62.53	62.59	61.39	63.07	62.53	59.45	60.19	58.97
Hats, caps, and millinery	-------	72.50	70.81	72.69	67.86	75.38	71.28	70.30	67.71	66.40	74.03	74.43	68.42	70.08	69.70
Girls' and children's outerwear	64.62	62.84	62.48	62.48	59.86	63.86	63.86	64.01	63.15	62.47	64.01	64.75	61.22	60.79	58.00
Fur goods and miscellaneous apparel	-------	74.70	76.80	77.46	72.04	74.23	73.43	74.54	74.17	71.54	71.57	71.93	70.40	70.81	67.51
Miscellaneous fabricated textile products	76.13	78.36	78.95	80.96	76.58	76.23	69.92	74.10	74.30	73.71	74.11	73.34	72.35	73.73	70.47
Paper and allied products	119.28	120.53	121.37	121.37	121.92	120.77	120.50	120.18	119.03	117.50	117.34	116.37	115.83	114.22	109.57
Paper and pulp	135.69	137.51	139.05	138.43	138.29	137.39	137.56	135.45	134.25	132.76	131.72	131.28	130.69	128.16	121.88
Paperboard	138.08	137.95	140.43	139.05	138.91	138.12	139.38	138.78	139.54	141.22	136.96	133.95	136.05	132.14	124.32
Converted paper and paperboard products	105.66	105.42	105.84	104.75	105.75	104.23	103.91	104.66	103.57	102.34	102.41	101.50	101.26	99.42	96.28
Paperboard containers and boxes	106.19	109.13	109.91	110.68	111.89	109.82	108.54	110.08	108.89	106.01	107.35	105.92	104.00	104.23	100.56
Printing, publishing and allied industries	123.26	125.51	124.87	125.51	125.12	122.85	121.83	122.54	122.22	120.82	121.06	119.74	117.73	118.12	114.35
Newspaper publishing and printing	124.24	131.32	129.17	127.73	127.39	125.17	124.17	125.58	125.24	122.40	119.95	119.62	118.57	119.85	116.84
Periodical publishing and printing	-------	131.54	133.39	136.04	139.03	132.93	132.76	129.44	125.58	124.74	126.00	124.90	124.50	125.83	122.01
Books	-------	114.54	115.08	115.93	117.04	115.78	114.11	117.43	116.84	112.59	114.36	111.22	111.22	110.68	106.90
Commercial printing	126.55	128.40	127.76	129.52	129.04	127.20	126.25	125.37	125.45	124.03	125.77	124.03	120.59	120.96	116.42
Bookbinding and related industries	-------	96.33	95.94	96.29	94.92	93.60	92.19	93.65	95.01	94.14	94.95	94.17	90.58	91.57	89.40
Other publishing and printing industries	129.89	126.36	124.94	125.71	126.81	124.16	123.00	122.43	122.88	123.13	125.05	124.41	123.24	120.90	116.10
Average weekly hours															
Apparel and related products	35.9	36.2	36.4	36.6	35.7	36.9	36.3	36.7	36.5	36.1	36.9	36.6	35.7	36.4	35.9
Men's and boys' suits and coats	37.1	38.3	38.3	38.4	37.7	39.1	38.3	38.5	38.6	37.8	38.4	38.6	37.9	37.9	36.3
Men's and boys' furnishings	37.1	37.5	37.2	37.4	37.1	37.8	37.3	37.6	36.9	36.5	37.4	37.3	37.0	37.6	36.9
Women's, misses', and juniors' outerwear	33.6	33.5	33.7	33.9	32.7	34.7	34.4	34.8	34.8	34.8	35.4	34.8	33.2	34.0	33.9
Women's and children's undergarments	36.2	36.4	37.7	38.0	37.1	37.6	36.9	37.0	36.6	35.9	37.1	37.0	35.6	36.7	36.4
Hats, caps, and millinery	-------	36.8	36.5	36.9	34.8	37.5	36.0	37.0	36.6	35.7	37.2	37.4	36.2	36.5	36.3
Girls' and children's outerwear	36.1	35.5	35.7	35.7	34.4	36.7	36.7	37.0	36.5	35.9	37.0	37.0	35.8	36.4	35.8
Fur goods and miscellaneous apparel	-------	36.8	37.1	37.6	36.2	37.3	36.9	36.9	36.9	36.5	36.7	36.7	36.1	36.5	36.1
Miscellaneous fabricated textile products	37.5	38.6	38.7	39.3	38.1	38.5	36.8	38.0	38.1	37.8	38.4	38.0	37.1	38.4	38.3
Paper and allied products	42.6	43.2	43.5	43.5	43.7	43.6	43.5	43.7	43.6	43.2	43.3	43.1	42.9	43.1	42.8
Paper and pulp	44.2	44.5	45.0	44.8	44.9	44.9	45.1	45.0	44.9	44.7	44.5	44.5	44.3	44.5	44.0
Paperboard	44.4	44.5	45.3	45.0	45.1	44.7	45.4	45.5	45.9	46.3	45.5	44.5	45.2	45.1	44.4
Converted paper and paperboard products	41.6	42.0	42.0	41.9	42.3	42.2	41.9	42.2	42.1	41.6	41.8	41.6	41.5	41.6	41.5
Paperboard containers and boxes	41.0	42.3	42.6	42.9	43.2	42.9	42.4	43.0	42.7	41.9	42.6	42.2	41.6	42.2	41.9
Printing, publishing and allied industries	38.4	39.1	38.9	39.1	39.1	39.0	38.8	38.9	38.8	38.6	38.8	38.5	38.1	38.6	38.5
Newspaper publishing and printing	35.6	37.2	36.8	36.6	36.5	36.6	36.2	36.4	36.3	36.0	35.7	35.6	35.5	36.1	36.4
Periodical publishing and printing	-------	39.5	40.3	41.1	41.5	40.9	40.6	40.2	39.0	39.6	40.0	39.4	39.4	40.2	40.4
Books	-------	41.2	41.1	41.7	41.8	42.1	41.8	42.7	42.8	41.7	42.2	41.5	41.5	41.3	40.8
Commercial printing	39.3	40.0	39.8	40.1	40.2	40.0	39.7	39.8	39.7	39.5	39.8	39.5	38.9	39.4	39.2
Bookbinding and related industries	-------	39.0	39.0	39.3	38.9	39.0	38.9	38.7	39.1	38.9	39.4	39.4	37.9	38.8	38.7
Other publishing and printing industries	39.6	39.0	38.8	38.8	38.9	38.8	38.8	38.5	38.4	38.6	39.2	39.0	39.0	39.0	38.7
Average hourly earnings															
Apparel and related products	$1.94	$1.93	$1.93	$1.93	$1.90	$1.90	$1.87	$1.87	$1.87	$1.87	$1.88	$1.88	$1.85	$1.83	$1.79
Men's and boys' suits and coats	2.30	2.28	2.27	2.27	2.25	2.23	2.22	2.23	2.22	2.21	2.22	2.22	2.21	2.16	2.10
Men's and boys' furnishings	1.66	1.64	1.63	1.60	1.60	1.59	1.57	1.59	1.58	1.58	1.58	1.59	1.58	1.54	1.52
Women's, misses', and juniors' outerwear	2.12	2.12	2.12	2.13	2.10	2.12	2.09	2.05	2.05	2.05	2.08	2.08	2.01	2.02	1.97
Women's and children's undergarments	1.76	1.73	1.75	1.74	1.73	1.70	1.68	1.69	1.71	1.71	1.70	1.69	1.67	1.64	1.62
Hats, caps, and millinery	-------	1.97	1.94	1.97	1.95	2.01	1.98	1.90	1.85	1.86	1.99	1.99	1.89	1.92	1.92
Girls' and children's outerwear	1.79	1.77	1.75	1.75	1.74	1.74	1.74	1.73	1.73	1.74	1.73	1.75	1.71	1.67	1.62
Fur goods and miscellaneous apparel	-------	2.03	2.07	2.06	1.99	1.99	1.99	2.02	2.01	1.96	1.95	1.96	1.95	1.94	1.87
Miscellaneous fabricated textile products	2.03	2.03	2.04	2.06	2.01	1.98	1.90	1.95	1.95	1.95	1.93	1.93	1.95	1.92	1.84
Paper and allied products	2.80	2.79	2.79	2.79	2.79	2.77	2.77	2.75	2.73	2.72	2.71	2.70	2.70	2.65	2.56
Paper and pulp	3.07	3.09	3.09	3.09	3.08	3.06	3.05	3.01	2.99	2.97	2.96	2.95	2.95	2.88	2.77
Paperboard	3.11	3.10	3.10	3.09	3.08	3.09	3.07	3.05	3.04	3.05	3.01	3.01	3.01	2.93	2.80
Converted paper and paperboard products	2.54	2.51	2.52	2.50	2.50	2.47	2.48	2.48	2.46	2.46	2.45	2.44	2.44	2.39	2.32
Paperboard containers and boxes	2.59	2.58	2.58	2.58	2.59	2.56	2.56	2.56	2.55	2.53	2.52	2.51	2.50	2.47	2.40
Printing, publishing and allied industries	3.21	3.21	3.21	3.21	3.20	3.15	3.14	3.15	3.15	3.13	3.12	3.11	3.09	3.06	2.97
Newspaper publishing and printing	3.49	3.53	3.51	3.49	3.49	3.42	3.43	3.45	3.45	3.40	3.36	3.36	3.34	3.32	3.21
Periodical publishing and printing	-------	3.33	3.31	3.31	3.35	3.25	3.27	3.22	3.22	3.15	3.15	3.17	3.16	3.13	3.02
Books	-------	2.78	2.80	2.78	2.80	2.75	2.73	2.75	2.73	2.70	2.71	2.68	2.68	2.68	2.62
Commercial printing	3.22	3.21	3.21	3.23	3.21	3.18	3.18	3.15	3.16	3.14	3.16	3.14	3.10	3.07	2.97
Bookbinding and related industries	-------	2.47	2.46	2.45	2.44	2.40	2.37	2.42	2.43	2.42	2.41	2.39	2.39	2.36	2.31
Other publishing and printing industries	3.28	3.24	3.22	3.24	3.26	3.20	3.17	3.18	3.20	3.19	3.19	3.19	3.16	3.10	3.00

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Manufacturing—Continued															
Nondurable goods—Continued															
Chemicals and allied products	$126.77	$127.98	$128.29	$127.56	$127.14	$125.70	$126.00	$125.76	$124.49	$124.66	$122.64	$123.19	$122.18	$121.09	$116.48
Industrial chemicals	141.20	143.65	145.43	143.99	142.04	140.53	141.53	140.77	139.26	139.26	137.76	137.34	136.27	136.08	131.04
Plastics materials and synthetics	126.30	126.78	126.05	125.88	125.33	125.50	126.52	125.97	124.98	125.99	122.09	123.25	121.25	120.70	116.89
Drugs	116.16	116.47	116.18	115.77	114.24	111.23	110.68	111.78	111.93	111.66	111.25	111.79	111.38	106.90	102.77
Soap, cleaners, and toilet goods	121.36	120.42	122.06	122.06	122.77	122.93	121.42	121.93	118.12	117.29	116.62	116.31	116.03	113.15	108.68
Paints, varnishes, and allied products	117.10	118.53	117.99	117.83	119.83	118.58	118.01	119.99	120.70	118.72	115.65	114.40	112.75	113.15	109.03
Agricultural chemicals	-------	105.40	104.23	106.27	105.15	103.39	104.23	102.48	105.94	107.88	106.48	103.25	102.53	100.69	97.63
Other chemical products	120.60	124.07	122.89	122.64	123.97	121.51	120.38	121.55	119.00	118.43	115.62	116.72	116.75	116.90	112.98
Petroleum refining and related industries	150.10	145.32	146.70	145.43	146.80	142.72	147.06	145.95	145.61	145.69	141.62	140.61	141.62	138.42	133.76
Petroleum refining	158.47	152.46	154.34	150.12	152.04	148.57	153.91	152.40	154.15	154.21	149.58	148.10	148.39	145.05	139.52
Other petroleum and coal products	115.37	117.04	119.71	128.29	130.87	123.48	125.27	124.37	116.42	115.87	111.87	112.86	114.09	115.90	112.49
Rubber and miscellaneous plastic products	111.22	112.17	112.98	113.52	114.21	111.04	110.27	111.30	111.57	110.62	110.46	111.14	111.41	109.62	104.90
Tires and inner tubes	156.34	159.78	165.17	166.66	165.99	163.02	162.94	161.55	163.44	162.79	159.56	161.01	162.62	158.06	142.54
Other rubber products	110.56	110.35	110.20	110.72	106.91	104.34	107.33	106.24	105.06	105.57	106.24	106.75	103.82	99.96	
Miscellaneous plastic products	93.56	93.89	93.94	94.81	95.04	93.11	92.21	93.38	93.56	93.11	93.60	93.79	92.74	92.35	90.06
Leather and leather products	77.99	77.01	76.03	74.68	74.09	75.85	74.49	76.05	74.88	73.33	73.92	75.26	74.11	71.82	68.98
Leather tanning and finishing	103.57	104.19	103.83	103.53	101.45	100.19	100.19	102.66	103.16	102.09	101.93	100.21	99.31	97.99	94.19
Footwear, except rubber	75.47	73.73	72.39	70.88	71.25	73.32	72.71	73.88	71.62	69.94	71.05	72.34	71.39	68.80	66.55
Other leather products	76.00	75.06	76.05	75.66	72.18	73.71	70.88	72.77	72.96	71.63	72.77	73.33	71.44	70.49	66.73
Handbags and personal leather goods	-------	69.00	72.20	71.82	66.22	70.49	68.63	68.60	68.63	67.89	69.91	70.09	65.88	67.86	64.88
Average weekly hours															
Chemicals and allied products	41.7	42.1	42.2	42.1	42.1	41.9	42.0	42.2	42.2	42.4	42.0	41.9	41.7	41.9	41.6
Industrial chemicals	41.9	42.5	42.9	42.6	42.4	42.2	42.5	42.4	42.2	42.2	42.0	42.0	41.8	42.0	41.6
Plastics materials and synthetics	42.1	42.4	42.3	42.1	42.2	42.4	42.6	42.7	42.8	43.0	42.1	42.5	42.1	42.5	42.2
Drugs	40.9	41.3	41.2	41.2	40.8	40.3	40.1	40.5	40.7	40.9	40.9	41.1	41.1	40.8	40.3
Soap, cleaners, and toilet goods	41.0	41.1	41.8	41.8	41.9	42.1	41.3	41.9	41.3	41.3	41.5	41.1	41.0	40.7	40.4
Paints, varnishes, and allied products	40.8	41.3	41.4	41.2	41.9	41.9	41.7	42.4	42.5	42.1	41.6	41.3	41.0	41.6	41.3
Agricultural chemicals	-------	42.5	42.2	43.2	42.4	42.2	42.2	42.7	44.7	46.5	45.7	43.2	42.9	43.4	43.2
Other chemical products	41.3	42.2	41.8	42.0	42.6	41.9	41.8	42.5	41.9	41.7	41.0	41.1	41.4	41.9	42.0
Petroleum refining and related industries	42.4	42.0	42.4	42.4	42.8	42.1	43.0	42.8	42.7	42.6	41.9	41.6	41.9	42.2	41.8
Petroleum refining	42.6	42.0	42.4	41.7	42.0	41.5	42.4	42.1	42.7	42.6	41.9	41.6	41.8	41.8	41.4
Other petroleum and coal products	41.5	41.8	42.6	44.7	45.6	44.1	44.9	44.9	42.8	42.6	41.9	41.8	42.1	43.9	43.6
Rubber and miscellaneous plastic products	41.5	41.7	42.0	42.2	42.3	41.9	41.3	42.0	42.1	41.9	42.0	42.1	42.2	42.0	41.3
Tires and inner tubes	42.6	43.3	44.4	44.8	44.5	44.3	43.8	43.9	44.9	44.6	44.2	44.6	44.8	44.4	41.8
Other rubber products	42.2	41.8	41.9	41.9	42.1	41.6	40.6	41.6	41.5	41.2	41.4	41.5	41.7	41.2	40.8
Miscellaneous plastic products	40.5	41.0	41.2	41.4	41.5	41.2	40.8	41.5	41.4	41.2	41.6	41.5	41.4	41.6	41.5
Leather and leather products	38.8	38.7	38.4	38.1	37.8	39.1	39.0	39.2	38.6	37.8	38.5	39.2	38.8	38.2	37.9
Leather tanning and finishing	40.3	40.7	40.4	40.6	40.1	40.4	40.4	40.9	41.1	41.0	41.1	40.9	40.7	41.0	40.6
Footwear, except rubber	38.9	38.6	37.9	37.5	37.7	39.0	39.3	39.3	38.3	37.4	38.2	39.1	38.8	37.8	37.6
Other leather products	38.0	38.1	39.0	38.8	37.4	39.0	37.7	38.5	38.4	37.9	38.5	38.8	38.0	38.1	37.7
Handbags and personal leather goods	-------	36.9	38.0	37.8	35.6	38.1	37.3	37.9	37.5	37.1	38.2	38.3	36.6	37.7	37.5
Average hourly earnings															
Chemicals and allied products	$3.04	$3.04	$3.04	$3.03	$3.02	$3.00	$3.00	$2.98	$2.95	$2.94	$2.92	$2.94	$2.93	$2.89	$2.80
Industrial chemicals	3.37	3.38	3.39	3.38	3.35	3.33	3.33	3.32	3.30	3.30	3.28	3.27	3.26	3.24	3.15
Plastics materials and synthetics	3.00	2.99	2.98	2.99	2.97	2.96	2.97	2.95	2.92	2.93	2.90	2.90	2.88	2.84	2.77
Drugs	2.84	2.82	2.82	2.81	2.80	2.76	2.76	2.76	2.75	2.73	2.72	2.72	2.71	2.62	2.55
Soap, cleaners, and toilet goods	2.96	2.93	2.92	2.92	2.93	2.92	2.94	2.91	2.86	2.84	2.81	2.83	2.83	2.78	2.69
Paints, varnishes, and allied products	2.87	2.87	2.85	2.86	2.86	2.83	2.83	2.83	2.84	2.82	2.78	2.77	2.75	2.72	2.64
Agricultural chemicals	-------	2.48	2.47	2.46	2.48	2.45	2.47	2.40	2.37	2.32	2.33	2.39	2.39	2.32	2.26
Other chemical products	2.92	2.94	2.94	2.92	2.91	2.90	2.88	2.86	2.84	2.84	2.82	2.84	2.82	2.79	2.69
Petroleum refining and related industries	3.54	3.46	3.46	3.43	3.43	3.39	3.42	3.41	3.41	3.42	3.38	3.38	3.38	3.28	3.20
Petroleum refining	3.72	3.63	3.64	3.60	3.62	3.58	3.63	3.62	3.61	3.62	3.57	3.56	3.55	3.47	3.37
Other petroleum and coal products	2.78	2.80	2.81	2.87	2.87	2.80	2.79	2.77	2.72	2.72	2.67	2.70	2.71	2.64	2.58
Rubber and miscellaneous plastic products	2.68	2.69	2.69	2.69	2.70	2.65	2.67	2.65	2.65	2.64	2.63	2.64	2.64	2.61	2.54
Tires and inner tubes	3.67	3.69	3.72	3.72	3.73	3.68	3.72	3.68	3.64	3.65	3.61	3.61	3.63	3.56	3.41
Other rubber products	2.62	2.64	2.63	2.63	2.63	2.57	2.57	2.58	2.56	2.55	2.55	2.56	2.56	2.52	2.45
Miscellaneous plastic products	2.31	2.29	2.28	2.29	2.29	2.26	2.26	2.25	2.26	2.26	2.25	2.26	2.24	2.22	2.17
Leather and leather products	2.01	1.99	1.98	1.96	1.96	1.94	1.91	1.94	1.94	1.94	1.92	1.92	1.91	1.88	1.82
Leather tanning and finishing	2.57	2.56	2.57	2.55	2.53	2.48	2.48	2.51	2.51	2.49	2.48	2.45	2.44	2.39	2.32
Footwear, except rubber	1.94	1.91	1.91	1.89	1.89	1.88	1.85	1.88	1.87	1.87	1.86	1.85	1.84	1.82	1.77
Other leather products	2.00	1.97	1.95	1.95	1.93	1.89	1.88	1.89	1.90	1.89	1.89	1.89	1.88	1.85	1.77
Handbags and personal leather goods	-------	1.87	1.90	1.90	1.86	1.85	1.84	1.81	1.83	1.83	1.83	1.83	1.80	1.80	1.73

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Transportation and public utilities:															
Railroad transportation:															
Class I railroads[3]	-------	-------	-------	-------	-------	-------	-------	$137.54	$135.83	$132.75	$135.12	$139.91	$131.94	$130.80	$121.80
Local and interurban passenger transit:															
Local and suburban transportation	-------	113.28	114.75	$115.56	$112.83	$113.63	$114.59	113.52	113.52	111.83	109.36	109.10	108.42	108.20	104.16
Intercity and rural bus lines	-------	143.66	143.99	141.37	149.57	158.84	148.50	141.24	142.46	143.60	131.77	138.16	140.87	133.72	125.83
Motor freight transportation and storage	-------	137.49	136.43	138.14	138.78	136.63	136.42	137.06	133.14	131.36	131.88	132.40	128.96	130.48	124.02
Public warehousing	-------	97.82	97.76	96.64	98.16	98.29	98.33	95.92	95.04	92.43	92.59	95.34	93.26	93.09	91.53
Pipeline transportation	-------	153.55	152.31	152.25	152.77	148.37	150.38	148.96	151.00	153.18	150.75	151.00	150.32	145.85	142.55
Communication	-------	121.10	122.54	119.54	119.43	117.62	119.19	118.44	116.47	116.29	116.47	117.74	115.20	114.62	110.15
Telephone communication	-------	116.00	117.03	114.24	114.11	112.33	114.12	113.15	111.63	111.08	111.63	112.87	110.12	109.08	105.32
Telegraph communication[4]	-------	128.53	127.62	130.16	131.94	131.37	131.07	131.50	127.17	124.99	124.26	123.54	123.97	122.55	116.05
Radio and television broadcasting	-------	154.40	158.36	154.77	152.82	149.27	152.05	150.86	148.13	148.92	148.45	150.42	148.45	147.63	140.66
Electric, gas, and sanitary services	-------	139.86	140.53	141.20	137.86	136.54	139.35	134.72	135.14	133.99	133.25	135.62	135.20	131.24	125.25
Electric companies and systems	-------	142.61	142.96	142.12	139.93	139.61	143.90	137.78	137.78	136.29	136.54	137.03	133.31	133.31	127.62
Gas companies and systems	-------	128.64	129.90	131.36	128.03	124.64	124.64	122.72	124.14	122.61	121.99	124.92	124.31	120.83	116.03
Combined utility systems	-------	151.79	152.52	154.40	149.82	148.93	152.70	147.33	147.03	146.26	144.89	149.29	148.19	143.79	135.55
Water, steam, and sanitary systems	-------	110.70	112.89	111.79	111.24	109.74	112.17	108.39	108.53	110.00	107.83	110.51	108.58	105.41	100.77
Average weekly hours															
Transportation and public utilities:															
Railroad transportation:															
Class I railroads[3]	-------	-------	-------	-------	-------	-------	-------	44.8	44.1	43.1	44.3	44.7	42.7	43.6	43.5
Local and interurban passenger transit:															
Local and suburban transportation	-------	41.8	42.5	42.8	42.1	42.4	42.6	43.0	43.0	42.2	41.9	41.8	41.7	42.1	42.0
Intercity and rural bus lines	-------	43.8	43.9	43.1	45.6	47.7	45.0	44.0	44.8	45.3	42.1	44.0	44.3	43.7	42.8
Motor freight transportation and storage	-------	42.7	42.5	42.9	43.1	43.1	42.9	43.1	42.0	41.7	42.0	42.3	41.6	42.5	41.9
Public warehousing	-------	41.1	41.6	41.3	40.9	41.3	40.8	39.8	39.6	39.0	39.4	40.4	40.2	40.3	40.5
Pipeline transportation	-------	41.5	41.5	40.6	41.4	41.1	41.2	40.7	40.7	41.4	41.3	40.7	40.3	41.2	41.2
Communication	-------	40.1	41.4	40.8	40.9	40.7	41.1	40.7	40.3	40.1	40.3	40.6	40.0	40.5	40.2
Telephone communication	-------	40.0	41.5	40.8	40.9	40.7	41.2	40.7	40.3	40.1	40.3	40.6	39.9	40.4	40.2
Telegraph communication[4]	-------	42.7	42.4	43.1	43.4	43.5	43.4	43.4	43.7	43.1	42.7	42.6	42.6	43.0	42.2
Radio and television broadcasting	-------	40.0	40.5	40.2	39.9	39.7	39.7	39.7	39.5	39.5	39.8	39.9	39.8	39.9	39.4
Electric, gas, and sanitary services	-------	41.5	41.7	41.9	41.4	41.5	42.1	41.2	41.2	41.1	41.0	41.6	41.6	41.4	41.2
Electric companies and systems	-------	41.7	41.8	41.8	41.4	41.8	42.7	41.5	41.5	41.3	41.3	41.5	41.4	41.4	41.3
Gas companies and systems	-------	41.1	41.5	41.7	41.3	41.0	41.0	40.5	40.7	40.6	40.8	41.5	41.3	41.1	41.0
Combined utility systems	-------	41.7	41.9	42.3	41.5	41.6	42.3	41.5	41.3	41.2	40.7	41.7	42.1	41.8	41.2
Water, steam, and sanitary systems	-------	40.7	41.2	41.1	41.2	41.1	41.7	40.9	40.8	41.2	41.0	41.7	41.6	41.5	41.3
Average hourly earnings															
Transportation and public utilities:															
Railroad transportation:															
Class I railroads[3]	-------	-------	-------	-------	-------	-------	-------	$3.07	$3.08	$3.08	$3.05	$3.13	$3.09	$3.00	$2.80
Local and interurban passenger transit:															
Local and suburban transportation	-------	$2.71	$2.70	$2.70	$2.68	$2.68	$2.69	2.64	2.64	2.65	2.61	2.61	2.60	2.57	2.48
Intercity and rural bus lines	-------	3.28	3.28	3.28	3.28	3.33	3.30	3.21	3.18	3.17	3.13	3.14	3.18	3.06	2.94
Motor freight transportation and storage	-------	3.22	3.21	3.22	3.22	3.17	3.18	3.18	3.17	3.15	3.14	3.13	3.10	3.07	2.96
Public warehousing	-------	2.38	2.35	2.34	2.40	2.38	2.41	2.41	2.40	2.37	2.35	2.36	2.32	2.31	2.26
Pipeline transportation	-------	3.70	3.67	3.75	3.69	3.61	3.65	3.66	3.71	3.70	3.65	3.71	3.73	3.54	3.46
Communication	-------	3.02	2.96	2.93	2.92	2.89	2.90	2.91	2.89	2.90	2.89	2.90	2.88	2.83	2.74
Telephone communication	-------	2.90	2.82	2.80	2.79	2.76	2.77	2.78	2.77	2.77	2.77	2.78	2.76	2.70	2.62
Telegraph communication[4]	-------	3.01	3.01	3.02	3.04	3.02	3.02	3.03	2.91	2.90	2.91	2.90	2.91	2.85	2.75
Radio and television broadcasting	-------	3.86	3.91	3.85	3.83	3.76	3.83	3.80	3.75	3.77	3.73	3.77	3.73	3.70	3.57
Electric, gas, and sanitary services	-------	3.37	3.37	3.37	3.33	3.29	3.31	3.27	3.28	3.26	3.25	3.26	3.25	3.17	3.04
Electric companies and systems	-------	3.42	3.42	3.40	3.38	3.34	3.37	3.32	3.32	3.30	3.30	3.29	3.31	3.22	3.09
Gas companies and systems	-------	3.13	3.13	3.15	3.10	3.04	3.04	3.03	3.05	3.02	2.99	3.01	3.01	2.94	2.83
Combined utility systems	-------	3.64	3.64	3.65	3.61	3.58	3.61	3.55	3.56	3.55	3.56	3.58	3.52	3.44	3.29
Water, steam, and sanitary systems	-------	2.72	2.74	2.72	2.70	2.67	2.69	2.65	2.66	2.67	2.63	2.65	2.61	2.54	2.44

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Wholesale and retail trade	$80.30	$80.14	$79.79	$79.86	$79.92	$80.73	$80.94	$79.45	$78.60	$78.23	$77.86	$77.70	$77.54	$76.53	$74.28
Wholesale trade	114.09	114.11	112.87	112.74	111.93	111.38	112.20	110.70	111.11	110.43	109.48	109.08	108.53	106.49	102.31
Motor vehicles and automotive equipment		105.92	105.41	105.41	106.26	103.42	105.58	104.08	103.83	103.42	103.07	101.75	101.50	100.14	96.79
Drugs, chemicals, and allied products		116.11	115.60	115.49	115.66	113.08	114.33	113.36	114.29	113.88	112.00	111.48	112.44	109.08	105.04
Dry goods and apparel		109.82	109.15	110.78	108.95	109.16	107.82	106.96	107.54	105.75	105.08	105.18	103.32	103.19	99.94
Groceries and related products		103.73	103.79	103.07	103.89	103.66	105.75	101.34	100.85	99.54	99.23	99.06	98.09	96.76	94.16
Electrical goods		137.39	126.65	128.87	127.97	123.65	123.48	125.24	127.15	126.85	125.85	126.58	124.84	122.84	111.79
Hardware, plumbing, and heating goods		108.81	108.00	108.95	108.12	106.90	106.34	106.86	106.34	106.49	105.67	106.37	105.41	101.91	98.01
Machinery, equipment, and supplies		124.85	125.05	124.84	122.18	123.49	123.37	121.66	120.83	120.01	117.96	117.55	116.88	115.23	111.52
Miscellaneous wholesalers		113.81	112.40	111.60	111.35	110.83	111.10	110.83	110.68	110.28	109.07	109.34	109.89	107.20	104.38
Retail trade	69.34	69.29	68.64	68.87	69.09	70.11	70.48	69.14	67.64	67.47	67.12	67.30	67.49	66.61	64.75
General merchandise stores		62.24	60.26	61.01	61.38	62.24	62.93	61.49	59.88	59.73	59.40	59.22	58.53	58.81	56.77
Department stores		64.70	63.36	64.94	65.54	66.50	67.18	65.52	63.83	63.69	62.98	62.98	62.08	62.98	61.18
Mail order houses		84.84	73.08	70.04	71.25	71.66	71.55	71.96	70.64	68.61	68.94	67.40	66.78	71.00	70.12
Limited price variety stores		48.13	47.12	46.66	46.66	48.00	47.23	46.03	44.54	44.97	44.82	44.53	44.53	44.10	41.53
Food stores		71.81	72.59	71.81	72.76	74.84	75.05	73.49	70.81	70.26	70.26	70.35	70.35	70.32	68.51
Grocery, meat, and vegetable stores		72.81	73.48	72.70	74.00	75.90	76.33	74.74	71.81	71.26	71.26	71.69	71.57	71.69	69.55
Apparel and accessories stores		61.15	58.24	58.97	59.01	59.84	60.52	58.92	58.03	58.18	56.90	57.05	58.38	57.46	55.26
Men's and boys' apparel stores		74.13	72.12	71.69	71.48	73.64	74.78	73.44	70.90	69.65	68.56	69.40	71.20	69.84	67.53
Women's ready-to-wear stores		55.28	52.95	52.97	52.98	52.63	54.26	52.81	52.49	52.33	51.19	51.04	52.49	51.46	49.73
Family clothing stores		58.76	57.32	58.86	57.32	59.99	60.12	57.67	57.38	57.55	57.23	56.40	59.04	56.45	54.27
Shoe stores		59.84	56.36	58.02	60.41	60.52	59.88	57.66	56.36	59.67	55.67	56.52	56.65	56.64	55.21
Average weekly hours															
Wholesale and retail trade	36.5	37.1	36.6	36.8	37.0	37.9	38.0	37.3	36.9	36.9	36.9	37.0	37.1	37.7	37.9
Wholesale trade	40.6	40.9	40.6	40.7	40.7	40.8	41.1	40.7	40.7	40.6	40.7	40.7	40.8	40.8	40.6
Motor vehicles and automotive equipment		41.7	41.5	41.5	42.0	41.7	42.4	41.8	41.7	41.7	41.9	41.7	41.6	41.9	41.9
Drugs, chemicals, and allied products		39.9	40.0	40.1	40.3	40.1	40.4	40.2	40.1	40.1	40.0	40.1	40.3	40.4	40.4
Dry goods and apparel		38.4	37.9	38.2	37.7	38.3	38.1	38.2	38.0	37.5	37.8	37.7	37.3	37.8	38.0
Groceries and related products		41.0	40.7	40.9	40.9	41.3	42.3	40.7	40.5	40.3	40.5	40.6	40.7	41.0	41.3
Electrical goods		44.9	42.5	43.1	42.8	42.2	42.0	42.6	43.1	43.0	43.1	43.2	42.9	42.8	41.1
Hardware, plumbing, and heating goods		40.6	40.6	40.5	40.8	40.8	40.9	41.1	40.9	40.8	40.8	40.6	40.7	40.6	40.5
Machinery, equipment, and supplies		40.8	41.0	41.2	41.0	41.3	41.4	41.1	41.1	41.1	41.1	41.1	41.3	41.3	41.0
Miscellaneous wholesalers		40.5	40.0	40.0	40.2	40.3	40.4	40.3	40.1	40.1	40.1	40.2	40.4	40.3	40.3
Retail trade	35.2	35.9	35.2	35.5	35.8	36.9	36.9	36.2	35.6	35.7	35.7	35.8	35.9	36.6	37.0
General merchandise stores		34.2	32.4	32.8	33.0	34.2	34.2	33.6	32.9	33.0	33.0	32.9	32.7	33.8	34.2
Department stores		33.7	32.0	32.8	33.1	34.1	34.1	33.6	32.9	33.0	32.8	32.8	32.5	33.5	33.8
Mail order houses		42.0	36.0	34.5	35.1	35.3	34.9	35.1	34.8	33.8	34.3	33.7	33.9	36.6	37.7
Limited price variety stores		32.3	31.0	30.7	30.7	32.0	31.7	31.1	30.3	30.8	30.7	30.5	30.5	31.5	31.7
Food stores		33.4	33.3	33.4	34.0	35.3	35.4	34.5	33.4	33.3	33.3	33.5	33.5	34.3	34.6
Grocery, meat, and vegetable stores		33.4	33.4	33.5	34.1	35.3	35.5	34.6	33.4	33.3	33.3	33.5	33.6	34.3	34.6
Apparel and accessories stores		33.6	32.0	32.4	32.6	34.0	34.0	33.1	32.6	32.5	32.7	32.6	32.8	33.6	33.9
Men's and boys' apparel stores		35.3	33.7	34.3	34.7	36.1	36.3	36.0	35.1	35.0	34.8	34.7	34.9	36.0	36.7
Women's ready-to-wear stores		33.5	31.9	32.1	32.5	33.1	33.7	32.8	32.4	32.5	32.4	32.1	32.4	33.2	33.6
Family clothing stores		33.2	32.2	32.6	32.2	33.7	33.4	32.4	32.6	32.7	32.7	32.6	32.8	33.4	33.5
Shoe stores		32.0	30.3	30.7	31.3	34.0	32.9	31.0	30.3	30.6	31.1	31.4	31.3	32.0	32.1
Average hourly earnings															
Wholesale and retail trade	$2.20	$2.16	$2.18	$2.17	$2.16	$2.13	$2.13	$2.13	$2.13	$2.12	$2.11	$2.10	$2.09	$2.03	$1.96
Wholesale trade	2.81	2.79	2.78	2.77	2.75	2.73	2.73	2.72	2.73	2.72	2.69	2.68	2.66	2.61	2.52
Motor vehicles and automotive equipment		2.54	2.54	2.54	2.53	2.48	2.49	2.49	2.49	2.48	2.46	2.44	2.44	2.39	2.31
Drugs, chemicals, and allied products		2.91	2.89	2.88	2.87	2.82	2.83	2.82	2.85	2.84	2.80	2.78	2.79	2.70	2.60
Dry goods and apparel		2.86	2.88	2.90	2.89	2.85	2.83	2.80	2.83	2.82	2.78	2.79	2.77	2.73	2.63
Groceries and related products		2.53	2.55	2.52	2.54	2.51	2.50	2.49	2.49	2.47	2.45	2.44	2.41	2.36	2.28
Electrical goods		3.06	2.98	2.99	2.99	2.93	2.94	2.94	2.95	2.95	2.92	2.93	2.91	2.87	2.72
Hardware, plumbing, and heating goods		2.68	2.66	2.69	2.65	2.62	2.60	2.60	2.60	2.61	2.59	2.62	2.59	2.51	2.42
Machinery, equipment, and supplies		3.06	3.05	3.03	2.98	2.99	2.98	2.96	2.94	2.92	2.87	2.86	2.83	2.79	2.72
Miscellaneous wholesalers		2.81	2.81	2.79	2.77	2.75	2.75	2.75	2.76	2.75	2.72	2.72	2.72	2.66	2.59
Retail trade	1.97	1.93	1.95	1.94	1.93	1.90	1.91	1.91	1.90	1.89	1.88	1.88	1.88	1.82	1.75
General merchandise stores		1.82	1.86	1.86	1.86	1.82	1.84	1.83	1.82	1.81	1.80	1.80	1.79	1.74	1.66
Department stores		1.92	1.98	1.98	1.98	1.95	1.97	1.95	1.94	1.93	1.92	1.92	1.91	1.88	1.81
Mail order houses		2.02	2.03	2.03	2.03	2.03	2.05	2.05	2.03	2.03	2.01	2.00	1.97	1.94	1.86
Limited price variety stores		1.49	1.52	1.52	1.52	1.50	1.49	1.48	1.47	1.46	1.46	1.46	1.46	1.40	1.31
Food stores		2.15	2.18	2.15	2.14	2.12	2.12	2.13	2.12	2.11	2.11	2.10	2.10	2.05	1.98
Grocery, meat, and vegetable stores		2.18	2.20	2.17	2.17	2.15	2.15	2.16	2.15	2.14	2.14	2.14	2.13	2.09	2.01
Apparel and accessories stores		1.82	1.82	1.82	1.81	1.76	1.78	1.78	1.78	1.79	1.74	1.75	1.78	1.71	1.63
Men's and boys' apparel stores		2.10	2.14	2.09	2.06	2.04	2.06	2.04	2.02	1.99	1.97	2.00	2.04	1.94	1.84
Women's ready-to-wear stores		1.65	1.66	1.65	1.63	1.59	1.61	1.61	1.62	1.61	1.58	1.59	1.62	1.55	1.48
Family clothing stores		1.77	1.78	1.80	1.78	1.78	1.80	1.78	1.76	1.76	1.75	1.73	1.80	1.69	1.62
Shoe stores		1.87	1.86	1.89	1.93	1.78	1.82	1.86	1.86	1.95	1.79	1.80	1.81	1.77	1.72

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Average weekly earnings															
Wholesale and retail trade—Continued															
Retail trade—Continued															
Furniture and appliance stores		$95.12	$91.65	$91.34	$91.64	$91.37	$91.77	$89.89	$88.59	$87.81	$88.09	$87.47	$89.21	$88.18	$85.44
Furniture and home furnishings		93.60	90.32	90.39	90.46	91.20	90.12	89.89	88.65	87.47	87.30	86.63	88.03	86.98	83.82
Eating and drinking places [5]		48.72	47.95	47.91	48.00	48.93	48.79	47.40	46.51	46.31	46.31	46.38	46.17	45.76	44.38
Other retail trade		86.83	86.37	86.80	85.81	86.90	87.53	86.46	84.99	85.01	84.00	83.81	84.03	83.44	80.75
Building materials and hardware		92.99	92.32	93.41	93.21	93.28	93.51	92.64	90.91	90.49	88.81	88.38	89.02	88.41	85.46
Motor vehicle dealers		110.00	110.33	109.91	106.50	108.97	110.77	110.25	108.46	108.28	107.50	104.92	104.98	105.32	100.76
Other vehicle and accessory dealers		89.82	90.29	90.48	89.20	91.54	92.82	89.38	88.54	87.03	86.76	86.76	87.16	85.89	85.41
Drug stores		63.83	62.68	63.39	63.46	64.60	65.15	63.50	61.70	61.72	61.20	61.58	61.41	61.60	59.57
Fuel and ice dealers		105.40	104.73	102.61	99.25	97.29	98.33	97.11	98.18	98.41	99.54	102.38	103.97	96.05	93.09
Finance, insurance, and real estate [6]	$94.23	93.00	93.00	93.25	92.01	92.13	92.75	91.88	92.63	92.50	91.76	92.13	91.76	88.91	85.79
Banking		82.43	82.73	82.81	82.14	82.21	82.43	81.18	82.21	82.21	81.84	81.47	82.28	79.24	76.67
Credit agencies other than banks		87.00	86.02	86.71	85.27	85.96	86.41	84.75	86.56	86.18	85.28	86.26	87.10	84.29	80.89
Savings and loan associations		86.95	86.85	87.32	86.25	87.05	89.07	85.38	86.81	86.54	85.56	86.16	87.70	84.67	82.72
Security dealers and exchanges		128.43	131.73	131.72	133.20	132.82	135.42	139.13	149.71	148.93	145.16	144.02	139.13	127.43	120.99
Insurance carriers		100.81	100.81	100.44	99.70	99.32	99.80	99.06	98.69	98.85	98.85	99.22	98.21	95.86	92.01
Life insurance		101.29	100.56	100.56	99.82	99.82	99.65	98.92	98.64	98.19	98.92	98.82	98.26	95.63	91.73
Accident and health insurance		90.13	90.27	88.93	90.27	89.65	88.91	89.17	88.56	88.43	88.32	88.67	86.14	85.38	81.70
Fire, marine, and casualty insurance		103.09	103.19	102.71	101.52	101.41	101.90	101.41	100.93	100.81	100.70	101.08	100.17	97.92	94.75
Average weekly hours															
Wholesale and retail trade—Continued															
Retail trade—Continued															
Furniture and appliance stores		39.8	39.0	39.2	39.5	39.9	39.9	39.6	39.2	39.2	39.5	39.4	39.3	39.9	40.3
Furniture and home furnishings		40.0	39.1	39.3	39.5	40.0	39.7	39.6	39.4	39.4	39.5	39.2	39.3	39.9	40.3
Eating and drinking places [5]		33.6	33.3	33.5	33.8	35.2	35.1	34.1	33.7	33.8	33.8	34.1	34.2	35.2	35.5
Other retail trade		40.2	39.8	40.0	40.1	40.8	40.9	40.4	39.9	40.1	40.0	40.1	40.4	40.9	41.2
Building materials and hardware		41.7	41.4	41.7	41.8	42.4	42.7	42.3	41.7	41.7	41.5	41.3	41.6	42.1	42.1
Motor vehicle dealers		42.8	42.6	42.6	42.6	42.9	43.1	42.9	42.7	42.8	43.0	43.0	43.2	43.7	44.0
Other vehicle and accessory dealers		43.6	43.2	43.5	43.3	43.8	44.2	43.6	43.4	43.3	43.6	43.6	43.8	43.6	43.8
Drug stores		34.5	33.7	33.9	34.3	35.3	35.6	34.7	33.9	34.1	34.0	34.4	34.5	35.4	36.1
Fuel and ice dealers		42.5	42.4	42.4	41.7	41.4	42.2	41.5	41.6	41.7	42.0	43.2	43.5	42.5	42.9
Finance, insurance, and real estate [6]	$37.1	37.2	37.2	37.3	37.1	37.3	37.4	37.2	37.2	37.3	37.3	37.3	37.3	37.2	37.3
Banking		37.3	37.1	37.3	37.0	37.2	37.3	36.9	37.2	37.2	37.2	37.2	37.4	37.2	37.4
Credit agencies other than banks		37.5	37.4	37.7	37.4	37.7	37.9	37.5	37.8	37.8	37.9	38.0	38.2	37.8	37.8
Savings and loan associations		37.0	36.8	37.0	36.7	37.2	37.9	36.8	37.1	37.3	37.2	37.3	37.8	37.3	37.6
Security dealers and exchanges		36.8	36.9	37.0	37.0	37.1	37.1	37.5	37.9	37.8	38.0	37.8	37.1	37.7	37.0
Insurance carriers		37.2	37.2	37.2	37.2	37.2	37.1	37.1	37.1	37.3	37.3	37.3	37.2	37.3	37.1
Life insurance		36.7	36.7	36.7	36.7	36.7	36.5	36.5	36.4	36.5	36.5	36.6	36.8	36.5	36.4
Accident and health insurance		37.4	37.3	36.9	37.3	37.2	37.2	37.0	36.9	37.0	36.8	37.1	36.5	36.8	36.8
Fire, marine, and casualty insurance		37.9	37.8	37.9	37.6	37.7	37.6	37.7	37.8	37.9	38.0	38.0	37.8	38.1	37.9
Average hourly earnings															
Wholesale and retail trade—Continued															
Retail trade—Continued															
Furniture and appliance stores		$2.39	$2.35	$2.33	$2.32	$2.29	$2.30	$2.27	$2.26	$2.24	$2.23	$2.22	$2.27	$2.21	$2.12
Furniture and home furnishings		2.34	2.31	2.30	2.29	2.28	2.27	2.27	2.25	2.22	2.21	2.21	2.24	2.18	2.08
Eating and drinking places [5]		1.45	1.44	1.43	1.42	1.39	1.39	1.39	1.38	1.37	1.37	1.36	1.35	1.30	1.25
Other retail trade		2.16	2.17	2.17	2.14	2.13	2.14	2.14	2.13	2.12	2.10	2.09	2.08	2.04	1.96
Building materials and hardware		2.23	2.23	2.24	2.23	2.20	2.19	2.19	2.18	2.17	2.14	2.14	2.14	2.10	2.03
Motor vehicle dealers		2.57	2.59	2.58	2.50	2.54	2.57	2.57	2.54	2.53	2.50	2.44	2.43	2.41	2.29
Other vehicle and accessory dealers		2.06	2.09	2.08	2.06	2.09	2.10	2.05	2.04	2.01	1.99	1.99	1.99	1.97	1.95
Drug stores		1.85	1.86	1.87	1.85	1.83	1.83	1.83	1.82	1.81	1.80	1.79	1.78	1.74	1.65
Fuel and ice dealers		2.48	2.47	2.42	2.38	2.35	2.33	2.34	2.36	2.36	2.37	2.37	2.39	2.26	2.17
Finance, insurance, and real estate [6]	$2.54	2.50	2.50	2.50	2.48	2.47	2.48	2.47	2.49	2.48	2.46	2.47	2.46	2.39	2.30
Banking		2.21	2.23	2.22	2.22	2.21	2.21	2.20	2.21	2.21	2.20	2.19	2.20	2.13	2.05
Credit agencies other than banks		2.32	2.30	2.30	2.28	2.28	2.28	2.26	2.29	2.28	2.25	2.27	2.28	2.23	2.14
Savings and loan associations		2.35	2.36	2.36	2.35	2.34	2.35	2.32	2.34	2.32	2.30	2.31	2.32	2.27	2.20
Security dealers and exchanges		3.49	3.57	3.56	3.60	3.58	3.65	3.71	3.95	3.94	3.82	3.81	3.75	3.38	3.27
Insurance carriers		2.71	2.71	2.70	2.68	2.67	2.69	2.67	2.66	2.65	2.65	2.66	2.64	2.57	2.48
Life insurance		2.76	2.74	2.74	2.72	2.72	2.73	2.71	2.71	2.69	2.71	2.70	2.67	2.62	2.52
Accident and health insurance		2.41	2.42	2.41	2.42	2.41	2.39	2.41	2.40	2.39	2.40	2.39	2.36	2.32	2.22
Fire, marine, and casualty insurance		2.72	2.73	2.71	2.70	2.69	2.71	2.69	2.67	2.66	2.65	2.66	2.65	2.57	2.50

See footnotes at end of table.

TABLE C–1. Gross hours and earnings of production workers,[1] by industry—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
	Average weekly earnings														
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels [5]		$55.50	$54.83	$55.06	$53.73	$53.58	$53.72	$52.68	$52.97	$52.36	$52.13	$52.59	$52.36	$51.17	$49.54
Personal services:															
Laundries, cleaning and dyeing plants		62.87	61.99	62.65	61.88	60.74	61.76	62.15	61.44	60.04	59.82	58.90	59.44	58.98	55.73
Motion pictures:															
Motion picture filming and distributing		166.96	159.42	164.55	159.29	162.51	165.68	160.19	148.71	147.66	146.07	148.80	153.97	148.08	136.17
	Average weekly hours														
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels [5]		37.0	36.8	37.2	36.8	38.0	38.1	37.1	37.3	37.4	37.5	37.3	37.4	37.9	38.4
Personal services:															
Laundries, cleaning and dyeing plants		38.1	37.8	38.2	38.2	38.2	38.6	38.6	38.4	38.0	38.1	38.0	38.1	38.8	38.7
Motion pictures:															
Motion picture filming and distributing		42.7	41.3	42.3	41.7	42.1	42.7	41.5	40.3	39.8	39.8	40.0	40.2	39.7	39.7
	Average hourly earnings														
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels [5]		$1.50	$1.49	$1.48	$1.46	$1.41	$1.41	$1.42	$1.42	$1.40	$1.39	$1.41	$1.40	$1.35	$1.29
Personal services:															
Laundries, cleaning and dyeing plants		1.65	1.64	1.64	1.62	1.59	1.60	1.61	1.60	1.58	1.57	1.55	1.56	1.52	1.44
Motion pictures:															
Motion picture filming and distributing		3.91	3.86	3.89	3.82	3.86	3.88	3.86	3.69	3.71	3.67	3.72	3.83	3.73	3.43

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A–9. For employees covered, see footnote 1, table A–10.
[2] Preliminary.
[3] Based upon monthly data summarized in the M–300 report by the Interstate Commerce Commission, which relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group I). Beginning January 1965, data relate to railroads with operating revenues of $5,000,000 or more.
[4] Data relate to nonsupervisory employees except messengers.
[5] Money payments only, tips not included.
[6] Data for nonoffice salesmen excluded from all series in this division.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except that for Class I railroads. (See footnote 3.)

TABLE C–2. Average weekly hours, seasonally adjusted, of production workers in selected industries [1]

Revised series; see box, p. 87.

Industry division and group	1967	1966											
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
Mining	42.3	42.4	42.5	42.6	42.9	42.4	43.2	42.9	42.6	41.7	43.2	42.7	42.6
Contract construction	38.6	38.8	37.1	37.3	37.7	36.9	37.8	37.4	36.1	37.2	38.5	38.1	37.8
Manufacturing	40.9	40.9	41.3	41.3	41.5	41.4	41.0	41.3	41.5	41.5	41.5	41.5	41.4
Durable goods	41.8	41.7	42.1	42.2	42.3	42.1	41.8	42.0	42.2	42.3	42.3	42.4	42.4
Ordnance and accessories	42.0	42.2	42.7	42.2	42.5	42.1	42.7	42.1	42.4	42.2	42.0	42.3	42.4
Lumber and wood products, except furniture	39.9	40.3	40.4	40.4	40.3	40.3	40.6	40.5	41.4	41.3	41.1	41.2	41.4
Furniture and fixtures	40.7	40.5	41.1	41.2	41.2	41.6	41.0	41.8	42.0	41.6	41.9	41.7	41.7
Stone, clay, and glass products	42.0	42.4	41.7	41.8	41.9	41.8	41.5	41.9	41.8	42.1	42.8	42.4	42.5
Primary metal industries	41.4	41.6	42.5	42.7	42.5	42.4	41.6	42.0	42.2	41.8	41.9	41.9	41.9
Fabricated metal products	42.4	42.2	42.2	42.4	42.7	42.2	42.1	42.3	42.4	42.4	42.4	42.5	42.5
Machinery	43.8	43.6	44.0	43.9	44.3	43.8	43.3	43.8	43.8	43.7	44.0	43.9	43.8
Electrical equipment and supplies	40.8	40.6	40.9	41.1	41.3	41.2	40.9	41.2	41.3	41.4	41.3	41.5	41.5
Transportation equipment	41.6	41.7	42.0	42.4	42.9	43.2	42.1	42.3	42.2	43.4	42.9	43.3	43.4
Instruments and related products	41.7	41.7	41.7	42.0	42.2	41.7	41.7	42.0	42.4	42.0	42.4	42.3	42.2
Miscellaneous manufacturing industries	40.4	39.7	40.0	40.0	39.9	40.0	39.7	40.1	40.3	40.0	40.3	40.2	40.0
Nondurable goods	40.1	39.9	40.2	40.2	40.2	40.2	40.1	40.3	40.3	40.3	40.4	40.5	40.2
Food and kindred products	41.1	41.0	41.1	41.0	41.2	41.1	41.3	41.0	40.9	41.1	41.1	41.5	41.1
Tobacco manufactures	39.0	39.2	38.5	37.7	38.7	37.8	37.9	38.0	38.5	39.2	39.4	41.3	38.9
Textile mill products	41.1	40.9	41.0	41.3	42.1	42.0	41.7	42.2	42.2	41.9	42.4	42.3	42.2
Apparel and related products	36.5	36.5	36.5	36.7	35.6	36.3	36.2	36.5	36.5	36.4	36.5	36.5	36.3
Paper and allied products	43.0	42.9	43.6	43.1	43.4	43.3	43.4	43.4	43.7	43.7	43.5	43.5	43.3
Printing, publishing, and allied industries	38.8	38.6	39.0	39.0	38.9	38.9	39.0	39.0	38.7	38.9	38.7	38.7	38.5
Chemicals and allied products	42.0	42.0	42.2	42.2	42.0	42.0	42.0	42.0	41.9	42.3	42.0	42.1	42.0
Petroleum refining and related industries	42.8	42.3	42.6	42.4	41.8	41.9	42.4	42.5	42.5	42.6	42.6	42.6	42.3
Rubber and miscellaneous plastic products	41.6	41.2	42.0	42.1	42.0	41.8	41.5	41.7	42.1	42.4	42.2	42.3	42.3
Leather and leather products	38.5	37.9	38.8	38.8	38.3	38.6	38.3	38.7	39.0	39.0	38.5	38.7	38.5
Wholesale and retail trade	36.8	36.8	36.9	36.9	37.0	37.3	37.3	37.2	37.0	37.1	37.1	37.3	37.4
Wholesale trade	40.8	40.6	40.6	40.7	40.7	40.8	40.9	40.6	40.7	40.7	40.8	40.9	41.0
Retail trade	35.5	35.6	35.6	35.7	35.8	36.1	36.1	36.0	35.9	35.9	36.0	36.1	36.2

[1] For employees covered, see footnote 1, table A–10.
[2] Preliminary.

NOTE: The seasonal adjustment method used is described in *The BLS Seasonal Factor Method* (1966) which may be obtained from the Bureau on request.

TABLE C–3. Average hourly earnings excluding overtime of production workers in manufacturing, by major industry group [1]

Revised series; see box, p. 87.

Major industry group	1967	1966											Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing	$2.67	$2.65	$2.63	$2.62	$2.61	$2.57	$2.59	$2.58	$2.58	$2.58	$2.56	$2.56	$2.56	$2.50	$2.44
Durable goods	2.84	2.82	2.80	2.79	2.78	2.73	2.74	2.74	2.74	2.74	2.72	2.72	2.72	2.67	2.60
Ordnance and accessories	-------	3.10	3.07	3.08	3.07	3.06	3.04	3.04	3.05	3.04	3.05	3.04	3.05	3.03	2.96
Lumber and wood products, except furniture	-------	2.19	2.20	2.22	2.22	2.19	2.18	2.17	2.16	2.13	2.09	2.10	2.08	2.08	2.03
Furniture and fixtures	-------	2.16	2.14	2.13	2.12	2.11	2.10	2.10	2.10	2.09	2.07	2.06	2.06	2.03	1.97
Stone, clay, and glass products	-------	2.64	2.64	2.62	2.61	2.59	2.57	2.57	2.57	2.57	2.55	2.55	2.54	2.49	2.42
Primary metal industries	-------	3.16	3.16	3.15	3.15	3.13	3.15	3.14	3.13	3.13	3.11	3.09	3.09	3.04	2.99
Fabricated metal products	-------	2.78	2.76	2.75	2.75	2.71	2.71	2.70	2.71	2.71	2.70	2.69	2.68	2.63	2.57
Machinery	-------	2.96	2.95	2.94	2.92	2.89	2.89	2.89	2.89	2.88	2.87	2.86	2.86	2.81	2.75
Electrical equipment and supplies	-------	2.58	2.57	2.55	2.54	2.52	2.52	2.52	2.52	2.52	2.51	2.51	2.51	2.49	2.44
Transportation equipment	-------	3.25	3.22	3.22	3.21	3.13	3.13	3.13	3.12	3.11	3.11	3.11	3.10	3.04	2.96
Instruments and related products	-------	2.63	2.62	2.60	2.60	2.58	2.58	2.59	2.57	2.58	2.57	2.56	2.56	2.52	2.47
Miscellaneous manufacturing industries	-------	2.21	2.16	2.14	2.14	2.12	2.14	2.14	2.13	2.14	2.13	2.13	2.13	2.07	2.02
Nondurable goods	2.42	2.40	2.39	2.37	2.36	2.34	2.35	2.34	2.34	2.33	2.32	2.31	2.31	2.27	2.21
Food and kindred products	-------	2.45	2.42	2.40	2.39	2.37	2.39	2.41	2.42	2.43	2.41	2.38	2.38	2.33	2.27
Tobacco manufactures	-------	2.13	2.08	2.05	2.04	2.12	2.27	2.26	2.24	2.24	2.18	2.17	2.13	2.06	1.91
Textile mill products	-------	1.91	1.91	1.90	1.89	1.88	1.88	1.88	1.83	1.83	1.82	1.82	1.82	1.78	1.71
Apparel and related products	-------	1.89	1.89	1.88	1.86	1.85	1.84	1.83	1.83	1.83	1.84	1.84	1.82	1.80	1.76
Paper and allied products	-------	2.63	2.63	2.62	2.61	2.60	2.60	2.58	2.57	2.57	2.55	2.55	2.55	2.50	2.43
Printing, publishing, and allied industries	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Chemicals and allied products	-------	2.93	2.92	2.91	2.90	2.88	2.89	2.87	2.84	2.82	2.81	2.83	2.83	2.79	2.72
Petroleum refining and related industries	-------	3.34	3.33	3.30	3.29	3.27	3.28	3.28	3.27	3.30	3.28	3.29	3.28	3.18	3.10
Rubber and miscellaneous plastic products	-------	2.56	2.55	2.55	2.55	2.52	2.55	2.52	2.52	2.52	2.51	2.51	2.51	2.49	2.44
Leather and leather products	-------	1.93	1.93	1.91	1.91	1.88	1.86	1.88	1.88	1.89	1.87	1.86	1.86	1.84	1.78

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A–9. For employees covered, see footnote 1, table A–10. Average hourly earnings excluding overtime are derived by assuming that overtime hours are paid for at the rate of time and one-half.
[2] Preliminary.
[3] Not available because average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable goods total has little effect.

TABLE C–4. Average weekly overtime hours of production workers in manufacturing, by industry [1]

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing	3.3	3.8	3.9	4.1	4.2	4.0	3.8	4.0	4.0	3.9	3.9	3.8	3.7	3.6	3.1
Durable goods	3.5	4.1	4.2	4.5	4.6	4.3	4.1	4.4	4.4	4.3	4.2	4.2	4.1	3.9	3.3
Nondurable goods	2.9	3.3	3.4	3.6	3.7	3.5	3.5	3.5	3.4	3.3	3.3	3.3	3.1	3.2	2.9
Durable goods															
Ordnance and accessories	------	4.2	4.3	4.1	4.2	4.1	3.7	3.9	3.7	3.6	3.4	3.5	3.9	3.0	1.8
Ammunition, except for small arms	------	3.5	3.3	3.3	3.5	3.5	3.0	3.1	3.1	3.0	2.9	3.2	3.8	3.1	1.8
Sighting and fire control equipment	------	3.0	3.9	2.2	3.4	3.0	3.4	4.1	3.6	3.5	3.4	3.7	3.4	1.6	1.3
Other ordnance and accessories	------	5.6	6.3	6.2	6.0	5.6	5.4	5.6	5.0	5.2	4.5	4.4	4.0	2.9	2.0
Lumber and wood products, except furniture	------	3.3	3.4	3.9	4.0	4.1	4.1	4.2	4.4	4.3	4.0	3.7	3.8	3.8	3.4
Sawmills and planing mills	------	3.2	3.3	3.9	3.9	4.1	4.1	4.3	4.5	4.4	4.0	3.8	3.8	3.7	3.4
Millwork, plywood, and related products	------	3.2	3.3	3.7	3.8	3.9	3.9	4.2	4.7	4.4	4.1	3.9	3.9	4.0	3.6
Wooden containers	------	3.8	3.7	3.7	4.0	4.6	4.5	4.4	4.7	4.2	3.4	3.6	3.6	3.5	2.8
Miscellaneous wood products	------	3.5	3.8	4.0	4.2	4.1	4.0	3.9	3.9	3.9	3.8	3.6	3.6	3.6	3.4
Furniture and fixtures	------	3.7	3.8	4.3	4.3	4.2	3.3	4.0	3.8	3.4	3.7	3.5	3.4	3.6	3.2
Household furniture	------	3.6	3.7	4.1	4.0	3.9	2.9	3.7	3.6	3.3	3.6	3.5	3.3	3.6	3.4
Office furniture	------	5.2	4.9	5.0	4.9	5.2	4.7	4.7	4.6	4.5	4.3	4.5	4.0	3.5	2.5
Partitions; office and store fixtures	------	3.4	3.5	4.7	5.5	5.4	4.1	4.9	4.3	3.6	4.0	3.6	3.5	3.7	2.4
Other furniture and fixtures	------	4.3	4.2	4.5	5.1	5.0	4.6	4.5	4.1	3.4	3.4	3.2	3.1	3.7	3.1
Stone, clay, and glass products	------	3.9	4.3	4.6	4.7	4.8	4.7	4.9	4.8	4.6	4.5	4.0	4.0	4.2	3.9
Flat glass	------	4.0	5.9	4.8	3.8	4.0	4.2	3.6	4.1	4.8	4.4	4.3	4.3	4.1	3.7
Glass and glassware, pressed or blown	------	4.0	4.1	4.0	4.1	4.1	4.1	4.6	4.5	4.0	4.4	4.3	4.0	4.0	3.6
Cement, hydraulic	------	2.3	3.0	2.8	3.0	3.0	3.3	2.7	2.8	2.7	2.7	2.3	2.5	2.2	2.1
Structural clay products	------	2.9	3.4	3.7	3.7	3.7	3.9	4.0	3.9	3.8	3.6	3.1	3.3	3.6	3.3
Pottery and related products	------	2.6	3.1	2.8	3.0	2.7	2.0	2.6	2.2	2.5	2.3	2.4	2.3	2.2	2.0
Concrete, gypsum, and plaster products	------	5.0	5.3	6.6	7.0	7.3	7.2	7.1	7.0	6.8	6.3	5.0	5.3	6.2	5.9
Other stone and mineral products	------	3.7	3.8	4.3	4.2	4.2	4.0	4.4	4.3	4.3	4.0	4.0	3.4	3.5	3.3
Primary metal industries	------	3.8	4.0	4.2	4.5	4.1	3.9	4.2	4.0	4.1	4.0	3.9	3.6	3.8	3.2
Blast furnace and basic steel products	------	2.2	2.4	2.8	3.3	3.0	3.1	2.9	2.8	2.8	2.4	2.3	1.8	2.8	2.4
Iron and steel foundries	------	5.4	5.4	5.4	5.3	5.1	4.5	5.4	5.1	5.6	5.6	5.6	5.1	5.5	4.7
Nonferrous smelting and refining	------	4.0	4.2	4.4	4.3	4.2	3.8	4.0	3.8	3.9	3.6	3.5	3.2	3.5	3.1
Nonferrous rolling, drawing, and extruding	------	5.6	6.2	6.3	6.3	6.0	5.5	6.5	6.2	5.9	5.9	5.9	6.0	5.0	3.9
Nonferrous foundries	------	4.6	4.8	4.8	5.2	4.4	3.7	4.7	4.5	4.6	4.5	4.5	4.7	3.9	3.2
Miscellaneous primary metal industries	------	6.0	6.5	6.5	6.5	5.4	4.8	5.7	6.0	5.4	6.1	6.3	6.1	5.2	4.0
Fabricated metal products	------	4.4	4.6	4.8	5.0	4.7	4.3	4.6	4.6	4.3	4.3	4.2	4.1	4.0	3.4
Metal cans	------	3.0	3.7	3.6	5.1	5.6	6.9	4.6	4.8	4.4	3.8	4.0	3.4	4.5	3.8
Cutlery, handtools, and general hardware	------	3.4	3.5	3.6	3.8	3.5	3.1	3.6	3.7	3.6	3.4	3.3	3.4	3.4	3.1
Heating equipment and plumbing fixtures	------	2.5	2.6	3.3	3.2	3.0	2.3	3.1	3.0	2.6	2.4	2.5	2.1	2.3	2.2
Fabricated structural metal products	------	4.5	4.4	4.5	4.7	4.4	4.1	4.3	4.1	3.6	3.5	3.4	3.4	3.6	3.0
Screw machine products, bolts, etc	------	7.4	7.2	7.2	7.3	6.5	5.9	7.0	6.9	6.7	6.8	7.0	6.7	5.4	4.3
Metal stampings	------	4.5	5.4	5.8	6.0	5.4	5.1	5.1	5.3	5.3	5.3	5.2	5.3	5.2	4.5
Coating, engraving, and allied services	------	5.1	4.7	5.0	5.7	5.1	4.4	5.0	5.1	4.8	4.8	4.7	4.3	4.3	3.8
Miscellaneous fabricated wire products	------	4.4	4.5	4.5	4.5	4.4	4.4	4.5	4.6	4.0	4.1	4.4	4.0	3.8	3.1
Miscellaneous fabricated metal products	------	3.7	4.0	4.2	4.4	4.3	3.8	4.9	4.6	4.0	4.3	4.1	3.7	3.4	2.7
Machinery	------	5.6	5.4	5.6	5.7	5.4	5.2	5.8	5.8	5.6	5.7	5.6	5.3	4.6	3.9
Engines and turbines	------	6.7	4.9	4.9	5.8	6.0	5.8	5.7	6.0	5.8	5.4	4.4	3.9	4.1	3.1
Farm machinery and equipment	------	3.4	3.1	3.7	4.0	3.4	3.2	3.7	4.2	4.4	4.3	4.0	3.7	2.9	2.6
Construction and related machinery	------	4.2	4.7	4.9	4.9	4.9	5.2	5.3	5.3	5.1	5.1	5.0	4.5	4.2	3.5
Metalworking machinery and equipment	------	7.8	7.6	7.5	7.6	7.1	7.4	8.2	8.3	8.0	8.2	8.0	7.6	6.7	5.9
Special industry machinery	------	6.2	5.8	5.7	6.1	5.4	4.7	5.8	5.5	5.3	5.6	5.6	5.4	4.8	4.1
General industrial machinery	------	5.6	5.4	5.8	6.0	5.6	5.0	5.8	5.7	5.1	5.1	5.2	5.1	4.4	3.5
Office, computing, and accounting machines	------	4.0	3.8	4.1	3.9	3.5	3.2	4.0	4.0	3.7	4.2	4.6	4.9	3.4	2.3
Service industry machines	------	3.5	3.5	3.5	3.3	3.7	3.4	3.7	3.3	3.3	3.5	3.3	3.0	2.9	2.3
Miscellaneous machinery	------	6.4	6.5	6.6	6.6	6.3	5.9	6.3	6.3	6.3	6.4	6.2	6.1	5.4	4.7
Electrical equipment and supplies	------	3.3	3.3	3.5	3.6	3.2	3.2	3.4	3.4	3.3	3.3	3.4	3.2	2.8	2.3
Electric distribution equipment	------	4.4	3.9	3.8	4.4	3.7	3.9	4.1	3.9	3.5	3.7	3.4	3.3	2.9	2.6
Electrical industrial apparatus	------	4.1	4.0	4.2	4.7	4.3	4.3	4.5	4.7	4.5	4.4	4.3	4.1	3.5	3.0
Household appliances	------	2.6	3.3	3.7	4.1	3.8	3.6	3.6	3.8	3.6	2.9	3.5	3.3	3.0	2.2
Electric lighting and wiring equipment	------	3.0	3.1	3.4	3.3	3.2	2.8	3.1	3.1	2.8	2.8	2.9	2.8	2.7	2.1
Radio and TV receiving sets	------	2.8	3.0	3.7	3.3	2.9	2.7	2.5	1.9	2.4	2.3	2.3	2.3	2.4	1.7
Communication equipment	------	3.6	3.3	3.4	3.6	2.9	2.7	3.2	3.4	3.0	3.3	3.4	3.6	2.7	2.2
Electronic components and accessories	------	2.7	2.7	2.7	2.9	2.7	2.9	3.3	3.4	3.3	3.3	3.4	2.9	2.4	2.1
Miscellaneous electrical equipment and supplies	------	3.9	4.1	3.8	3.5	3.1	2.5	2.8	3.0	2.9	2.9	3.5	3.2	3.2	2.6
Transportation equipment	------	4.3	4.8	5.2	4.9	4.8	4.5	4.4	4.4	5.1	4.7	4.8	5.1	4.8	3.9
Motor vehicles and equipment	------	4.3	5.0	5.9	5.2	5.0	4.4	4.2	4.1	5.8	4.7	5.3	5.5	6.2	5.0
Aircraft and parts	------	4.6	5.1	4.9	5.1	5.2	5.0	5.1	5.2	4.6	5.1	5.0	5.6	3.3	2.5
Ship and boat building and repairing	------	4.3	4.0	4.5	3.7	3.9	4.1	4.2	4.0	4.2	4.4	3.8	3.8	3.4	3.1
Railroad equipment	------	3.7	3.4	3.2	3.0	3.5	3.9	3.1	3.6	3.7	3.0	2.9	3.1	2.6	2.8
Other transportation equipment	------	1.9	2.1	2.8	3.4	3.1	2.6	3.2	3.3	2.9	2.8	2.0	2.0	2.9	3.2
Instruments and related products	------	3.7	3.7	4.0	4.0	3.5	3.4	3.8	3.8	3.5	3.6	3.7	3.5	3.0	2.4
Engineering and scientific instruments	------	4.9	4.3	4.7	4.5	3.9	4.0	4.5	4.5	3.7	4.0	4.2	3.9	3.4	2.3
Mechanical measuring and control devices	------	4.0	4.1	4.4	4.4	3.8	3.9	4.1	4.3	4.0	3.8	4.0	4.1	2.9	2.5
Optical and ophthalmic goods	------	3.1	3.0	3.3	3.5	3.1	3.0	3.3	3.2	2.2	3.3	3.2	2.9	2.7	2.4
Ophthalmic goods	------	2.6	2.6	2.8	2.9	2.5	2.8	2.8	2.8	2.1	2.9	2.7	2.6	2.4	2.1
Surgical, medical, and dental equipment	------	2.5	2.7	2.8	2.9	2.7	2.6	2.8	2.9	2.6	2.7	2.4	2.5	2.1	2.0
Photographic equipment and supplies	------	4.4	4.5	5.1	5.1	4.1	3.9	4.6	4.8	4.9	4.7	5.0	4.3	4.0	3.3
Watches and clocks	------	2.8	2.8	2.9	2.8	2.6	2.3	2.4	2.4	2.5	2.8	2.6	2.5	2.4	1.6

See footnotes at end of table.

TABLE C–4. Average weekly overtime hours of production workers in manufacturing, by industry [1]—Continued

Revised series; see box, p. 87.

Industry	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
Manufacturing—Continued															
Durable goods—Continued															
Miscellaneous manufacturing industries		2.9	3.1	3.4	3.3	3.1	2.3	2.8	2.9	2.8	3.1	2.9	2.7	2.7	2.4
Jewelry, silverware, and plated ware		5.2	4.9	5.3	4.9	4.6	2.2	4.2	4.1	4.1	4.3	3.7	3.7	3.6	3.3
Toys, amusement and sporting goods		2.4	2.8	3.2	3.3	3.1	2.3	2.3	2.6	2.6	2.7	2.5	2.4	2.6	2.1
Pens, pencils, office and art materials		3.3	3.2	2.8	2.7	2.4	2.0	2.8	2.2	2.0	2.4	2.1	1.8	2.3	1.8
Costume jewelry, buttons, and notions		2.8	2.8	3.1	2.9	2.9	2.2	3.4	3.0	2.6	3.0	3.0	2.7	2.4	2.0
Other manufacturing industries		2.6	2.9	3.2	3.2	2.9	2.3	2.7	2.9	2.8	3.1	2.9	2.8	2.7	2.5
Musical instruments and parts		3.4	3.9	3.7	3.5	2.9	2.3	3.1	3.2	2.8	3.2	3.5	2.7	3.0	3.1
Nondurable goods															
Food and kindred products		4.0	4.0	4.2	4.4	4.0	4.7	4.2	3.8	3.4	3.4	3.6	3.5	3.8	3.6
Meat products		5.1	5.1	4.8	5.1	4.2	4.5	4.3	3.9	3.5	3.4	3.5	4.2	4.2	4.2
Dairy products		3.7	3.5	3.6	4.0	3.9	4.6	4.3	3.7	3.5	3.3	3.4	3.2	3.6	3.5
Canned and preserved food, except meats		2.7	2.9	3.2	3.5	3.4	3.6	3.1	3.1	2.8	2.7	3.3	2.6	2.9	2.8
Grain mill products		6.7	6.6	7.7	8.5	7.0	7.9	7.3	6.4	5.6	5.6	6.3	6.0	6.6	6.3
Bakery products		3.1	3.3	3.7	3.8	3.8	4.3	3.9	3.5	3.3	3.1	3.2	3.1	3.3	3.1
Sugar		3.0	3.8	3.8	4.4	4.0	4.8	4.0	3.7	3.5	4.6	4.5	3.4	3.9	3.7
Confectionery and related products		3.2	3.1	3.1	3.1	2.9	2.3	2.5	2.3	1.9	2.6	2.4	2.5	2.4	2.2
Beverages		3.6	3.6	3.8	4.0	4.2	6.7	4.4	3.5	3.6	3.1	2.8	2.7	3.3	3.1
Miscellaneous food and kindred products		4.9	4.9	4.8	5.0	4.2	4.4	4.2	4.1	3.8	3.9	4.4	4.0	4.3	4.0
Tobacco manufactures		1.9	1.2	1.4	1.5	1.7	1.7	1.5	1.2	1.3	1.0	1.9	.9	1.1	1.6
Cigarettes		2.2	1.2	1.7	1.8	2.2	2.5	1.9	1.2	1.6	.9	2.9	.6	.8	1.6
Cigars		1.0	1.2	1.1	.9	1.2	.8	1.0	1.3	1.1	1.1	1.2	1.2	1.3	2.1
Textile mill products		3.8	4.2	4.2	4.4	4.4	4.4	4.6	4.6	4.5	4.6	4.6	4.3	4.2	3.6
Cotton broad woven fabrics		4.9	5.3	5.0	5.2	5.1	5.5	5.3	5.3	5.3	5.5	5.6	5.4	4.8	4.3
Silk and synthetic broad woven fabrics		4.0	4.5	4.3	4.7	5.2	5.6	4.9	6.0	5.5	5.7	5.5	4.8	5.3	5.0
Weaving and finishing broad woolens		4.0	3.9	3.9	4.3	4.3	5.0	5.2	5.5	5.3	5.1	5.2	4.7	4.4	3.4
Narrow fabrics and smallwares		3.9	4.1	4.1	4.3	3.9	3.7	4.4	4.0	3.9	4.4	4.5	4.1	3.6	3.1
Knitting		1.9	2.3	2.5	2.7	3.1	2.6	2.8	2.8	2.2	2.5	2.3	2.1	2.5	2.1
Finishing textiles, except wool and knit		5.4	5.2	5.1	4.9	4.8	4.5	5.9	5.6	5.7	5.8	5.5	5.1	4.6	4.2
Floor covering		4.2	5.0	5.3	5.4	4.9	3.5	4.5	4.1	4.2	4.4	4.7	4.0	5.1	4.4
Yarn and thread		3.4	4.0	4.4	5.0	4.9	4.7	5.1	5.0	5.2	5.2	5.4	5.2	4.7	3.6
Miscellaneous textile goods		4.2	4.9	5.2	5.2	4.7	4.2	5.1	5.2	5.0	4.8	4.9	4.8	4.3	3.6
Apparel and related products		1.4	1.5	1.7	1.5	1.7	1.3	1.5	1.5	1.4	1.6	1.5	1.3	1.4	1.3
Men's and boys' suits and coats		1.5	1.7	2.0	1.7	1.8	1.3	1.7	1.7	1.4	1.6	1.8	1.5	1.5	1.0
Men's and boys' furnishings		1.1	1.3	1.4	1.3	1.5	1.1	1.4	1.3	1.2	1.3	1.2	1.1	1.2	1.0
Women's, misses', juniors' outerwear		1.3	1.3	1.3	1.2	1.4	1.3	1.5	1.5	1.4	1.8	1.5	1.2	1.3	1.3
Women's and children's undergarments		1.3	1.9	2.2	1.9	1.9	1.5	1.5	1.5	1.3	1.7	1.6	1.1	1.4	1.4
Hats, caps, and millinery		1.1	1.2	1.3	1.2	1.7	1.3	1.3	1.0	1.0	1.9	1.9	1.3	1.4	1.4
Girls' and children's outerwear		1.0	1.4	1.4	1.5	1.8	1.7	1.9	1.6	1.4	1.6	1.8	1.4	1.4	1.3
Fur goods and miscellaneous apparel		1.5	1.8	2.1	1.5	1.6	1.1	1.6	1.6	1.2	1.3	1.3	1.2	1.4	1.2
Miscellaneous fabricated textile products		2.2	2.5	3.0	2.4	2.4	1.6	1.9	1.9	1.9	2.0	1.8	1.7	2.1	1.9
Paper and allied products		5.2	5.5	5.7	5.8	5.6	5.5	5.7	5.6	5.3	5.3	5.1	5.0	5.0	4.7
Paper and pulp		6.3	6.3	6.6	6.5	6.4	6.3	6.5	6.7	6.2	6.2	6.2	6.1	6.0	5.7
Paperboard		6.9	7.5	7.2	7.4	7.4	7.6	7.7	7.8	8.2	7.5	7.0	7.5	7.0	6.3
Converted paper and paperboard products		3.9	4.3	4.3	4.5	4.3	4.3	4.3	3.9	3.7	3.9	3.7	3.5	3.5	3.3
Paperboard containers and boxes		4.6	5.0	5.5	5.7	5.0	4.9	5.2	5.0	4.5	4.8	4.5	4.2	4.5	4.1
Printing, publishing, and allied industries		3.7	3.6	3.9	4.0	3.7	3.4	3.5	3.5	3.3	3.5	3.0	2.8	3.1	2.9
Newspaper publishing and printing		3.5	3.2	3.1	3.0	2.7	2.6	3.0	3.0	2.6	2.3	2.0	1.9	2.4	2.4
Periodical publishing and printing		3.3	4.4	5.6	5.8	4.6	3.9	3.3	3.4	3.7	4.1	3.7	3.4	3.8	4.0
Books		4.4	4.1	4.8	5.2	5.4	4.9	5.4	5.4	5.1	5.1	4.4	4.3	4.2	3.8
Commercial printing		4.0	3.9	4.3	4.4	4.1	3.8	3.7	3.8	3.6	3.9	3.5	3.1	3.4	3.1
Bookbinding and related industries		2.6	2.7	3.2	3.3	3.1	2.8	2.8	3.0	2.8	3.0	2.4	2.2	2.5	2.4
Other publishing and printing industries		3.6	3.5	3.6	3.9	3.5	3.2	3.0	2.6	2.9	3.6	3.1	3.0	3.1	2.7
Chemicals and allied products		3.2	3.3	3.5	3.5	3.4	3.3	3.4	3.4	3.7	3.3	3.1	2.9	3.0	2.7
Industrial chemicals		3.4	3.7	3.7	3.5	3.4	3.5	3.4	3.2	3.4	3.2	3.0	2.9	3.0	2.6
Plastics materials and synthetics		3.0	3.0	3.2	3.2	3.5	3.5	3.4	3.3	3.6	3.0	3.2	2.8	2.9	2.7
Drugs		2.7	2.8	2.9	3.1	2.6	2.3	2.5	2.8	2.8	2.9	3.0	3.1	2.6	2.0
Soap, cleaners, and toilet goods		2.8	3.6	3.9	3.9	3.8	3.2	3.4	2.9	3.0	3.1	2.9	2.8	2.5	2.5
Paints, varnishes, and allied products		2.5	2.7	2.9	3.4	3.3	3.0	3.7	3.8	3.4	2.7	2.6	2.2	2.7	2.5
Agricultural chemicals		4.2	3.9	4.6	4.2	3.7	3.8	4.3	6.5	8.9	7.3	4.7	4.1	4.9	4.6
Other chemical products		3.4	3.3	3.6	3.8	3.3	3.3	3.6	3.4	3.1	2.7	3.0	2.9	3.0	3.0
Petroleum refining and related industries		2.9	3.3	3.3	3.7	3.1	3.7	3.6	3.5	3.4	2.6	2.4	2.4	2.8	2.5
Petroleum refining		2.5	2.9	2.3	2.6	2.2	2.7	2.6	3.1	3.0	2.3	2.0	1.9	2.1	1.8
Other petroleum and coal products		4.6	4.9	6.7	7.4	5.8	6.8	6.7	5.0	4.6	3.9	3.8	4.2	5.5	5.0
Rubber, miscellaneous plastic products		4.0	4.5	4.7	4.7	4.3	3.9	4.3	4.4	4.2	4.3	4.4	4.4	4.1	3.4
Tires and inner tubes		5.6	6.4	6.4	6.1	5.7	5.8	5.4	6.5	6.6	5.8	6.7	6.8	6.1	4.3
Other rubber products		3.6	4.1	4.2	4.4	4.0	3.3	3.8	3.7	3.5	3.6	3.6	3.7	3.3	2.7
Miscellaneous plastic products		3.7	4.0	4.4	4.5	4.0	3.5	4.2	4.1	3.9	4.2	4.0	4.0	4.0	3.7
Leather and leather products		2.1	2.1	2.1	2.0	2.2	2.2	2.3	2.1	1.9	2.1	2.4	2.1	1.8	1.7
Leather tanning and finishing		3.6	3.5	3.5	3.4	3.3	3.4	3.8	4.0	3.5	3.5	3.5	3.3	3.3	2.9
Footwear, except rubber		1.9	1.6	1.6	1.7	2.0	2.1	2.1	1.9	1.6	1.9	2.2	1.9	1.6	1.5
Other leather products		2.0	2.8	2.8	2.5	2.5	1.8	2.3	2.1	2.1	2.2	2.4	2.2	2.0	1.7
Handbags and personal leather goods		1.7	2.9	2.8	2.2	2.7	1.8	2.0	2.0	1.9	2.5	2.4	1.7	1.9	2.0

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A–9. For employees covered, see footnote 1, table A–10.

These series cover premium overtime hours of production and related workers during the pay period which includes the 12th of the month. Overtime hours are those paid for at premium rates because (1) they exceeded either the straight-time workday or workweek or (2) they occurred on week ends or holidays or outside regularly scheduled hours. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded.

[2] Preliminary.

TABLE C–5. Indexes of aggregate weekly man-hours and payrolls in industrial and construction activities [1]

[1957–59=100] **Revised series; see box, p. 87.**

Activity	1967	1966												Annual average	
	Jan.[2]	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
	Man-hours														
Total	111.9	115.6	117.1	119.6	120.0	119.6	117.2	118.8	114.6	112.2	111.5	109.2	108.6	109.1	103.2
Mining	79.5	81.8	81.5	84.1	84.7	86.5	85.9	86.9	83.7	74.3	81.5	80.2	81.3	82.9	82.7
Contract construction	98.3	106.4	111.2	123.6	126.1	131.4	132.4	126.1	112.4	107.4	102.5	92.5	97.8	110.2	105.2
Manufacturing	116.0	119.0	119.9	120.6	120.7	119.1	116.0	119.1	116.5	114.9	114.6	113.7	111.9	110.2	103.9
Durable goods	123.1	126.0	126.6	127.2	126.9	123.2	121.5	125.8	123.6	122.1	120.9	119.6	118.1	114.1	105.5
Ordnance and accessories	162.7	159.3	159.3	154.0	150.9	145.2	142.5	141.5	139.3	134.4	132.0	130.8	128.3	113.1	118.7
Lumber and wood products, except furniture	88.8	92.2	95.0	98.1	100.2	104.1	103.7	105.6	102.0	98.9	96.4	94.8	95.9	97.5	95.7
Furniture and fixtures	122.8	129.0	129.6	130.7	130.0	131.6	122.5	128.1	124.3	122.0	123.7	121.6	120.8	119.0	111.6
Stone, clay, and glass products	102.4	106.1	109.5	111.7	113.5	115.4	114.5	115.2	112.8	110.9	108.0	104.5	105.4	108.1	105.4
Primary metal industries	113.5	113.7	114.7	115.3	117.7	117.3	116.3	119.2	116.5	115.8	113.5	112.1	110.2	112.9	106.2
Fabricated metal products	126.5	130.1	130.0	130.1	130.2	127.2	122.7	128.2	126.2	124.3	123.4	122.6	121.2	117.2	107.9
Machinery	140.7	140.9	137.6	137.3	138.0	135.9	134.5	137.9	136.3	134.3	134.2	132.8	130.2	123.0	112.1
Electrical equipment and supplies	149.1	152.2	152.7	153.9	152.1	148.6	141.9	146.7	143.3	141.5	139.4	139.5	137.4	125.6	113.0
Transportation equipment	117.5	122.4	122.6	122.2	119.4	103.0	109.3	116.5	116.4	117.2	116.3	115.4	114.6	106.8	94.8
Instruments and related products	130.4	131.7	130.6	130.4	129.3	127.7	125.5	128.2	125.6	122.9	123.6	122.3	120.0	112.3	104.6
Miscellaneous manufacturing industries	105.4	113.4	123.6	124.7	121.5	120.1	109.9	117.3	114.8	111.5	111.0	108.0	102.3	109.8	102.7
Nondurable goods	106.9	109.9	111.2	112.0	112.6	113.7	108.9	110.4	107.3	105.6	106.5	105.9	103.8	105.2	101.7
Food and kindred products	90.4	95.5	98.9	101.7	106.3	106.1	99.5	94.0	88.6	86.9	87.1	87.6	88.4	94.0	94.0
Tobacco manufactures	88.0	96.8	92.8	98.3	100.4	87.7	70.8	73.4	72.1	73.9	77.2	84.0	83.9	86.2	92.9
Textile mill products	100.4	102.7	104.2	105.0	105.8	107.2	103.4	108.4	106.0	103.4	105.2	104.5	102.6	101.5	96.8
Apparel and related products	115.8	118.2	120.2	121.3	117.7	122.5	114.2	121.1	118.8	116.2	120.6	118.9	110.5	115.0	109.1
Paper and allied products	114.3	117.4	118.5	117.3	117.5	118.4	117.2	118.2	114.7	113.4	112.7	111.4	110.9	109.8	106.8
Printing, publishing, and allied industries	117.3	120.8	119.1	119.2	118.7	118.0	116.4	116.7	115.1	114.3	114.2	113.0	110.9	110.2	106.5
Chemicals and allied products	115.4	116.9	117.1	116.6	116.9	117.9	116.8	117.9	116.0	116.1	113.4	111.5	110.1	110.1	106.0
Petroleum refining and related industries	77.7	78.1	80.0	80.3	82.2	82.2	83.9	82.6	80.2	78.7	76.3	75.5	75.7	78.3	78.9
Rubber and miscellaneous plastic products	152.6	154.2	154.9	153.9	152.1	149.7	143.6	147.9	145.8	143.8	143.2	142.2	142.8	135.4	122.1
Leather and leather products	97.0	98.1	98.0	96.7	96.7	102.4	97.7	102.1	98.6	96.2	99.3	101.5	98.7	96.3	94.6
	Payrolls														
Mining	101.2	102.7	102.0	105.2	105.6	105.4	105.2	106.5	102.5	87.4	97.7	96.5	97.5	97.0	93.1
Contract construction	139.7	149.9	155.7	173.0	173.2	177.0	180.3	171.1	152.6	145.1	137.9	125.4	131.4	144.3	132.4
Manufacturing	152.4	155.9	156.4	156.9	156.9	156.7	148.6	152.5	149.0	146.8	145.3	143.8	141.3	136.3	124.3

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A–9.
For mining and manufacturing, data refer to production and related workers and for contract construction, to construction workers, as defined in footnote 1, table A–10.
[2] Preliminary.

TABLE C–6. Gross and spendable average weekly earnings of production workers in manufacturing [1]

[In current and 1957–59 dollars] [1] **Revised series; see box, p. 87.**

Item	1966												1965	Annual average	
	Dec.[2]	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1965	1964
Manufacturing															
Gross average weekly earnings:															
Current dollars	$114.40	$113.99	$113.85	$113.71	$111.78	$111.11	$112.74	$112.05	$111.24	$110.95	$110.27	$110.00	$110.92	$107.53	$102.97
1957–59 dollars	99.74	99.47	99.43	99.66	98.22	98.07	99.86	99.51	98.88	99.06	98.81	99.10	99.93	97.84	95.25
Spendable average weekly earnings:															
Worker with no dependents:															
Current dollars	93.13	92.82	92.72	92.61	91.14	90.63	91.87	91.35	90.73	90.51	90.00	89.79	91.80	89.08	84.40
1957–59 dollars	81.19	80.99	80.98	81.17	80.09	79.99	81.37	81.13	80.65	80.81	80.65	80.89	82.70	81.06	78.08
Worker with 3 dependents:															
Current dollars	101.09	100.76	100.65	100.54	99.00	98.47	99.77	99.22	98.57	98.34	97.80	97.58	99.62	96.78	92.18
1957–59 dollars	88.13	87.92	87.90	88.12	86.99	86.91	88.37	88.12	87.62	87.80	87.63	87.91	89.75	88.06	85.27

[1] For comparability of data with those published in issues prior to October 1966, see footnote 1, table A–9. For employees covered, see footnote 1, table A–10.
Spendable average weekly earnings are based on gross average weekly earnings as published in table C–1 less the estimated amount of the workers' Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been computed for 2 types of income receivers: (1) A worker with no dependents and (2) a married worker with 3 dependents.
The earnings expressed in 1957–59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index.
[2] Preliminary.

NOTE: These series are described in "The Calculation and Uses of Spendable Earnings Series," *Monthly Labor Review*, April 1966, pp. 406–410.

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D.—Consumer and Wholesale Prices

TABLE D–1. Consumer Price Index [1]—U.S. city average for urban wage earners and clerical workers, all items, groups, subgroups, and special groups of items

[1957–59=100 unless otherwise specified]

Group	1967	1966												Annual average	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1966	1965
All items	114.7	114.7	114.6	114.5	114.1	113.8	113.3	112.9	112.6	112.5	112.0	111.6	111.0	113.1	109.9
All items (1947–49=100)	140.7	140.7	140.6	140.5	140.0	139.6	139.0	138.5	138.2	138.0	137.4	136.9	136.2	138.8	134.8
Food	114.7	114.8	114.8	115.6	115.6	115.8	114.3	113.9	113.5	114.0	113.9	113.1	111.4	114.2	108.8
Food at home	112.3	112.6	112.8	113.8	114.0	114.4	112.7	112.3	112.0	112.7	112.6	111.8	109.8	112.6	107.2
Cereals and bakery products	118.8	118.8	118.6	118.3	118.4	117.3	114.8	114.7	114.3	114.1	113.6	113.2	113.0	115.8	111.2
Meats, poultry, and fish	110.3	110.9	111.8	113.8	114.8	114.5	114.3	114.2	113.9	115.6	116.9	115.7	112.9	114.1	105.1
Dairy products	116.4	116.5	116.7	117.1	116.0	114.8	111.0	109.6	109.3	108.9	108.1	107.0	106.6	111.8	105.0
Fruits and vegetables	115.3	114.3	114.9	115.3	116.6	122.3	121.5	121.7	119.2	119.8	117.4	116.5	111.3	117.6	115.2
Other foods at home [2]	104.9	105.7	104.8	106.0	105.3	104.9	102.1	101.3	102.8	103.6	103.7	103.5	102.9	103.9	101.8
Food away from home	127.0	126.3	125.7	125.2	124.6	124.0	123.5	122.8	122.2	121.6	121.2	120.8	120.4	123.2	117.8
Housing	113.1	113.0	112.6	112.2	111.8	111.5	111.3	111.1	110.7	110.3	109.6	109.4	109.2	111.1	108.5
Shelter [3]	116.5	116.4	115.8	115.5	115.0	114.6	114.4	114.1	113.5	113.0	112.3	112.1	112.0	114.1	110.6
Rent	111.4	111.3	111.2	111.0	110.7	110.6	110.3	110.2	110.2	110.1	109.9	109.8	109.7	110.4	108.9
Homeownership [4]	118.7	118.6	117.8	117.4	116.8	116.4	116.2	115.8	115.0	114.3	113.5	113.3	113.1	115.7	111.4
Fuel and utilities [5]	108.6	108.4	108.3	108.1	108.0	107.9	107.9	108.0	108.2	108.3	106.6	106.5	106.4	107.7	107.2
Fuel oil and coal [6]	110.5	110.2	108.9	108.3	107.4	107.0	107.0	107.0	108.0	108.5	108.9	109.0	108.9	108.3	105.6
Gas and electricity	108.3	107.9	108.1	108.0	108.1	108.1	108.1	108.1	108.2	108.3	108.2	108.2	107.9	108.1	107.8
Household furnishings and operation [7]	106.7	106.7	106.5	106.1	105.7	105.2	105.1	104.8	104.6	104.4	104.0	103.8	103.6	105.0	103.1
Apparel and upkeep [8]	111.3	112.3	112.0	111.5	110.7	109.2	109.2	109.4	109.3	108.7	108.2	107.6	107.3	109.6	106.8
Men's and boys'	111.6	112.6	112.4	111.5	111.2	109.9	109.6	110.1	109.9	109.6	109.0	108.6	108.6	110.3	107.4
Women's and girls'	106.4	108.1	107.8	107.5	106.3	103.8	104.6	104.7	105.0	104.2	103.9	103.1	102.6	105.1	103.1
Footwear	122.9	122.9	122.8	122.2	121.3	120.4	119.8	119.8	119.0	118.1	116.9	116.2	115.6	119.6	112.9
Transportation	113.4	113.8	114.5	114.3	113.3	113.5	113.5	112.2	112.0	112.0	111.4	111.1	111.2	112.7	111.1
Private	111.4	111.7	112.6	112.3	111.3	111.6	111.5	110.7	110.5	110.5	109.9	109.6	109.6	111.0	109.7
Public	129.8	129.8	129.6	129.6	129.5	129.2	129.1	122.8	122.1	122.1	122.1	122.0	122.0	125.8	121.4
Health and recreation	121.4	121.0	120.8	120.4	119.9	119.5	119.1	118.7	118.4	118.1	117.6	117.1	116.9	119.0	115.6
Medical care	132.9	131.9	131.3	130.4	129.4	128.4	127.7	127.0	126.3	125.8	125.3	124.5	124.2	127.7	122.3
Personal care	113.8	113.7	113.4	113.3	113.0	112.7	112.5	112.2	112.0	111.6	111.0	110.8	110.4	112.2	109.9
Reading and recreation	118.5	118.4	118.3	118.0	117.5	117.4	117.2	117.0	116.8	116.8	116.6	115.9	115.7	117.1	115.2
Other goods and services [9]	116.2	115.9	116.0	115.9	115.7	115.5	115.3	114.9	114.7	114.3	113.8	113.6	113.4	114.9	111.4
Special groups:															
All items less shelter	114.2	114.3	114.4	114.3	113.9	113.6	113.1	112.6	112.4	112.4	111.9	111.4	110.8	112.9	109.6
All items less food	114.8	114.9	114.8	114.4	113.8	113.4	113.2	112.8	112.5	112.2	111.6	111.3	111.1	113.0	110.4
Commodities [10]	109.9	110.1	110.2	110.3	110.0	109.8	109.3	109.0	108.8	108.8	108.4	108.0	107.4	109.2	106.4
Nondurables [11]	112.7	113.0	112.9	113.1	112.9	112.5	111.8	111.5	111.3	111.4	111.1	110.6	109.6	111.8	107.9
Durables [10 12]	102.7	103.1	103.5	103.5	102.7	103.0	103.0	102.6	102.5	102.3	102.0	101.8	101.9	102.7	102.6
Services [10 13 14]	125.5	125.2	124.7	124.1	123.5	123.0	122.6	122.0	121.5	121.1	120.1	119.7	119.5	122.3	117.8
Commodities less food [10]	107.3	107.7	107.8	107.6	107.0	106.6	106.7	106.4	106.3	106.0	105.6	105.4	105.3	106.5	105.1
Nondurables less food	111.0	111.4	111.3	110.9	110.5	109.6	109.7	109.5	109.3	109.0	108.6	108.3	108.0	109.7	107.2
Apparel commodities	110.1	111.2	110.9	110.4	109.7	107.9	108.1	108.3	108.3	107.6	107.1	106.5	106.2	108.5	105.8
Apparel commodities less footwear	107.6	108.8	108.6	108.1	107.4	105.5	105.8	106.0	106.1	105.6	105.2	104.6	104.3	106.3	104.4
Nondurables less food and apparel	111.6	111.6	111.5	111.2	111.0	110.5	110.6	110.1	110.0	109.8	109.4	109.3	109.1	110.3	108.0
New cars	97.6	98.6	99.3	98.4	94.4	95.8	96.7	96.8	97.0	97.4	97.1	97.2	97.4	97.2	99.0
Used cars	113.0	114.2	119.3	120.8	120.1	122.1	120.3	118.2	117.5	117.4	115.4	114.0	114.8	117.8	120.8
Household durables [15]	97.6	97.7	97.6	97.4	97.3	97.0	96.9	96.7	96.7	96.4	96.2	96.1	96.1	96.8	96.9
Housefurnishings	99.7	100.0	99.9	99.5	99.3	98.9	98.8	98.6	98.5	98.3	98.0	97.8	97.6	98.8	97.9
Services less rent [10 13]	128.8	128.3	127.7	127.1	126.5	125.9	125.5	124.8	124.1	123.6	122.5	122.0	121.8	125.0	120.0
Household services less rent [10]	125.1	124.9	124.2	123.5	123.0	122.4	122.1	121.7	120.9	120.2	118.5	118.1	117.9	121.5	117.0
Transportation services	126.9	126.5	126.1	125.9	125.5	125.3	125.0	123.2	123.0	123.0	122.6	122.6	122.5	124.3	119.3
Medical care services	140.6	139.4	138.6	137.4	136.2	134.7	133.9	133.0	132.1	131.4	130.8	129.9	129.5	133.9	127.1
Other services [10 16]	129.1	128.9	128.5	128.2	127.5	127.1	126.7	126.4	125.9	125.5	125.0	124.1	123.8	126.5	121.8

[1] The CPI measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Beginning January 1964, the index structure has been revised to reflect buying patterns of wage earners and clerical workers in the 1960's. The indexes shown here are based on expenditures of all urban wage-earner and clerical-worker consumers, including single workers living alone, as well as families of two or more persons.

[2] Includes eggs, fats and oils, sugar and sweets, nonalcoholic beverages, and prepared and partially prepared foods.

[3] Also includes hotel and motel room rates not shown separately.

[4] Includes home purchase, mortgage interest, taxes, insurance, and maintenance and repairs.

[5] Also includes telephone, water, and sewerage service not shown separately.

[6] Called "Solid and petroleum fuels" prior to 1964.

[7] Includes housefurnishings and housekeeping supplies and services.

[8] Includes dry cleaning and laundry of apparel, infants' wear, sewing materials, jewelry, and miscellaneous apparel, not shown separately.

[9] Includes tobacco, alcoholic beverages, and funeral, legal, and bank service charges.

[10] Recalculated group—indexes prior to January 1964 have been recomputed.

[11] Includes foods, paint, furnace filters, shrubbery, fuel oil, coal, household textiles, housekeeping supplies, apparel, gasoline and motor oil, drugs and pharmaceuticals, toilet goods, nondurable recreational goods, newspapers, magazines, books, tobacco, and alcoholic beverages.

[12] Includes home purchase, which was classified under services prior to 1964, building materials, furniture and bedding, floor coverings, household appliances, dinnerware, tableware, cleaning equipment, power tools, lamps, venetian blinds, hardware, automobiles, tires, radios, television sets, tape recorders, durable toys, and sports equipment.

[13] Excludes home purchase costs which were classified under this heading prior to 1964.

[14] Includes rent, mortgage interest, taxes and insurance on real property, home maintenance and repair services, gas, electricity, telephone, water, sewerage service, household help, postage, laundry and dry cleaning, furniture and apparel repair and upkeep, moving, auto repairs, auto insurance, registration and license fees, parking and garage rent, local transit, taxicab, airplane, train, and bus fares, professional medical services, hospital services, health insurance, barber and beauty shop services, movies, fees for sports, television repairs, and funeral, bank, and legal services.

[15] Called "Durables less cars" prior to 1964. Does not include auto parts, durable toys, and sports equipment.

[16] Includes the services components of apparel, personal care, reading and recreation, and other goods and services. Not comparable with series published prior to 1964.

TABLE D–2. Consumer Price Index [1]—U.S. city average for urban wage earners and clerical workers, selected groups, subgroups, and special groups of items, seasonally adjusted [2]

[1957–59=100 unless otherwise specified]

Group	1967	1966											
	Jan.	Dec.[3]	Nov.[3]	Oct.[3]	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.
Food	114.9	115.3	115.3	115.8	115.3	115.5	113.2	114.0	114.0	114.3	114.2	113.1	111.6
Food at home	112.5	113.1	113.4	114.0	113.7	113.9	111.3	112.4	112.6	113.2	112.9	111.8	110.0
Meats, poultry, and fish	110.4	111.3	111.5	112.8	112.4	112.9	114.1	115.9	116.0	117.1	117.7	115.7	112.9
Dairy products	115.8	115.9	116.1	116.5	115.8	114.9	111.6	110.7	110.2	109.4	108.0	106.7	105.9
Fruits and vegetables	118.5	117.6	119.6	120.9	121.0	121.4	113.9	115.8	115.3	117.7	117.4	117.7	113.9
Other foods at home	104.4	104.9	104.1	104.5	103.8	105.1	102.9	102.9	104.0	104.5	104.4	103.3	102.1
Fuel and utilities [4]	108.2	108.0	108.1	108.0	108.2	108.4	108.4	108.4	108.5	108.2	106.3	106.3	106.0
Fuel oil and coal [5]	108.3	108.3	108.3	108.5	108.8	109.2	109.3	109.2	109.5	107.7	106.9	106.5	106.6
Apparel and upkeep [6]	111.9	111.7	111.3	110.8	110.5	109.6	109.6	109.5	109.4	108.8	108.5	108.0	107.8
Men's and boys'	111.9	111.9	111.7	111.1	111.0	110.2	109.9	110.2	109.9	109.7	109.4	109.0	109.0
Women's and girls'	107.5	107.1	107.5	106.3	105.8	104.5	105.1	105.0	105.4	104.5	104.4	103.8	103.6
Footwear	123.0	122.5	122.3	122.0	121.3	120.6	120.2	119.9	119.0	118.1	117.0	116.3	115.6
Transportation	113.2	113.3	114.0	114.1	113.5	113.5	113.4	112.3	112.0	112.3	111.8	111.4	110.8
Private	111.3	111.4	112.0	112.0	111.5	111.6	111.4	110.8	110.5	110.8	110.5	110.0	109.2
Special groups:													
Commodities [7]	110.1	110.1	110.1	110.2	109.9	109.8	109.1	108.9	109.0	109.0	108.6	108.1	107.5
Nondurables	112.9	113.1	112.9	113.0	112.8	112.4	111.4	111.5	111.6	111.6	111.4	110.7	109.8
Durables [7 8]	102.7	102.9	103.1	103.3	102.9	103.2	103.1	102.6	102.5	102.3	102.1	101.9	101.9
Commodities less food [7]	107.4	107.4	107.4	107.3	107.0	106.9	106.8	106.5	106.4	106.0	105.7	105.6	105.4
Nondurables less food	111.1	111.1	111.0	110.6	110.3	109.8	109.9	109.6	109.4	109.1	108.8	108.6	108.1
Apparel commodities	110.8	110.5	110.0	109.5	109.5	108.4	108.3	108.4	108.4	107.8	107.4	107.0	106.8
Apparel commodities less footwear	108.4	108.0	107.6	107.2	107.1	106.0	106.1	106.2	106.3	105.9	105.6	105.2	104.9
New cars	96.9	97.5	97.4	97.9	96.2	97.1	97.9	97.4	97.4	97.4	96.9	96.8	96.6
Used cars	115.1	114.0	118.0	119.6	118.7	120.8	118.6	116.8	117.6	118.2	117.6	117.3	116.5
Housefurnishings	100.0	100.0	99.8	99.5	99.3	99.2	98.9	98.4	98.4	98.0	97.8	97.9	97.9

[1] See footnote 1, table D–1.

[2] Beginning January 1966, seasonally adjusted national indexes were computed for selected groups, subgroups, and special groups where there is a significant seasonal pattern of price change. Previously published indexes for the year 1965 have been adjusted. No seasonally adjusted indexes will be shown for any of the individual metropolitan areas for which separate indexes are published. Previously, the Bureau of Labor Statistics has made available only seasonal factors, rather than seasonally adjusted indexes (e.g., Department of Labor Bulletin 1366, *Seasonal Factors, Consumer Price Index: Selected Series*). The factors currently used were derived by the BLS Seasonal Factor Method using data for 1956–66. These factors will be updated at the end of each calendar year. A detailed description of the BLS Seasonal Factor Method is available upon request.

[3] Recalculated indexes, based on updated seasonal factors.

[4] See footnote 5, table D–1.

[5] See footnote 6, table D–1.

[6] See footnote 8, table D–1.

[7] See footnote 10, table D–1.

[8] See footnote 12, table D–1.

TABLE D–3. Consumer Price Index—U.S. and selected areas for urban wage earners and clerical workers [1]

[1957–59=100 unless otherwise specified]

Area [2]	1967	1966												Annual average		1947–49=100
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964	Jan. 1967
	All items															
U.S. city average [3]	114.7	114.7	114.6	114.5	114.1	113.8	113.3	112.9	112.6	112.5	112.0	111.6	111.0	109.9	108.1	140.7
Atlanta, Ga.	(4)	113.3	(4)	(4)	112.8	(4)	(4)	111.1	(4)	(4)	110.3	(4)	(4)	108.1	106.7	(4)
Baltimore, Md.	(4)	114.5	(4)	(4)	114.3	(4)	(4)	113.4	(4)	(4)	112.5	(4)	(4)	109.6	107.9	(4)
Boston, Mass.	118.6	(4)	(4)	118.5	(4)	(4)	117.1	(4)	(4)	116.8	(4)	(4)	113.9	113.2	111.1	146.9
Buffalo, N.Y. (Nov. 1963=100)	(4)	(4)	108.0	(4)	(4)	107.7	(4)	(4)	106.6	(4)	(4)	105.8	(4)	103.5	101.1	------
Chicago, Ill.–Northwestern Ind.	111.8	112.2	111.9	112.0	111.9	111.4	110.5	110.6	110.2	109.9	109.9	109.3	108.6	107.6	106.1	141.0
Cincinnati, Ohio–Kentucky	(4)	111.2	(4)	(4)	111.7	(4)	(4)	110.2	(4)	(4)	109.1	(4)	(4)	107.2	*106.3*	(4)
Cleveland, Ohio	(4)	(4)	110.9	(4)	(4)	110.2	(4)	(4)	109.7	(4)	(4)	108.1	(4)	106.9	105.2	(4)
Dallas, Tex. (Nov. 1963=100)	(4)	(4)	106.5	(4)	(4)	105.6	(4)	(4)	104.6	(4)	(4)	103.4	(4)	101.4	100.1	------
Detroit, Mich.	113.3	113.3	112.7	112.6	112.1	111.9	111.3	111.2	110.6	110.2	109.6	108.8	108.4	106.4	104.0	139.7
Honolulu, Hawaii (Dec. 1963=100)	(4)	106.6	(4)	(4)	105.6	(4)	(4)	104.6	(4)	(4)	104.4	(4)	(4)	102.1	100.3	------
Houston, Tex.	113.0	(4)	(4)	112.4	(4)	(4)	111.6	(4)	(4)	110.9	(4)	(4)	110.0	108.5	*107.2*	139.2
Kansas City, Mo.–Kansas	(4)	117.3	(4)	(4)	117.1	(4)	(4)	116.5	(4)	(4)	115.3	(4)	(4)	113.3	*109.8*	(4)
Los Angeles–Long Beach, Calif.	115.8	116.3	116.3	115.9	115.7	114.6	115.0	114.5	114.2	114.3	113.7	113.4	112.8	112.5	110.2	144.4
Milwaukee, Wis.	(4)	(4)	111.6	(4)	(4)	111.5	(4)	(4)	110.1	(4)	(4)	109.5	(4)	108.2	*106.0*	(4)
Minneapolis–St. Paul, Minn.	113.4	(4)	(4)	113.4	(4)	(4)	112.0	(4)	(4)	111.8	(4)	(4)	110.5	109.5	*108.0*	140.3
New York, N.Y.–Northeastern N.J.	117.5	117.6	117.7	117.8	117.3	116.7	116.3	115.3	115.2	115.2	114.8	114.2	113.4	112.2	110.4	141.6
Philadelphia, Pa.–N.J.	115.0	115.3	115.0	115.0	114.7	114.5	113.7	113.4	113.1	113.2	112.7	112.4	111.6	110.6	108.8	141.2
Pittsburgh, Pa.	114.0	(4)	(4)	114.1	(4)	(4)	112.8	(4)	(4)	113.0	(4)	(4)	111.0	110.2	108.5	140.4
Portland, Oreg.–Wash. [5]	*117.1*	(4)	(4)	*116.6*	(4)	(4)	*115.5*	(4)	(4)	*114.7*	(4)	(4)	*112.9*	*111.8*	*109.0*	*145.1*
St. Louis, Mo.–Ill.	(4)	114.9	(4)	(4)	114.7	(4)	(4)	113.6	(4)	(4)	112.1	(4)	(4)	109.9	108.1	(4)
San Diego, Calif. (Feb. 1965=100)	(4)	(4)	103.5	(4)	(4)	102.0	(4)	(4)	101.6	(4)	(4)	101.2	(4)	100.1	------	(4)
San Francisco–Oakland, Calif.	(4)	117.2	(4)	(4)	116.4	(4)	(4)	115.2	(4)	(4)	114.9	(4)	(4)	112.7	110.6	(4)
Scranton, Pa. [5]	(4)	(4)	*116.2*	(4)	(4)	*115.5*	(4)	(4)	*114.1*	(4)	(4)	*113.9*	(4)	*111.0*	*109.3*	(4)
Seattle, Wash.	(4)	(4)	115.6	(4)	(4)	114.5	(4)	(4)	113.7	(4)	(4)	112.6	(4)	111.0	109.7	(·)
Washington, D.C.–Md.–Va.	(4)	(4)	114.6	(4)	(4)	114.0	(4)	(4)	112.8	(4)	(4)	111.9	(4)	109.6	108.1	(4)
	Food															
U.S. city average [3]	114.7	114.8	114.8	115.6	115.6	115.8	114.3	113.9	113.5	114.0	113.9	113.1	111.4	108.8	106.4	------
Atlanta, Ga.	114.1	113.8	114.0	114.7	114.2	114.0	112.5	112.4	112.0	112.8	112.4	111.9	110.5	107.4	104.8	------
Baltimore, Md.	115.3	116.0	115.9	116.7	117.9	117.4	116.2	115.9	115.3	116.3	115.5	115.5	112.7	109.3	[6] 106.6	------
Boston, Mass.	119.0	118.8	118.5	119.3	119.3	118.9	117.0	115.7	115.3	116.6	116.0	115.4	113.6	112.5	109.8	------
Buffalo, N.Y. (Nov. 1963=100)	109.7	109.3	109.7	109.7	109.9	110.5	108.8	108.5	108.0	109.2	108.0	108.2	106.0	104.1	101.5	------
Chicago, Ill.–Northwestern Ind.	114.1	114.7	114.7	115.4	116.3	116.8	114.1	114.3	113.6	114.2	115.1	114.2	112.0	108.8	106.1	------
Cincinnati, Ohio–Kentucky	111.5	111.7	112.4	113.6	113.4	113.9	112.1	111.6	110.7	111.2	110.9	110.9	108.9	106.2	*104.5*	------
Cleveland, Ohio	110.9	111.5	111.8	112.1	112.4	113.1	111.1	111.1	110.0	110.3	110.1	109.8	106.9	104.8	102.1	------
Dallas, Tex. (Nov. 1963=100)	110.5	110.9	111.0	111.0	111.1	111.6	110.1	109.4	109.4	110.2	109.0	108.6	107.6	103.9	100.5	------
Detroit, Mich.	113.0	113.1	113.1	113.5	113.7	114.4	112.8	112.0	111.5	111.6	111.3	110.0	108.9	105.0	101.9	------
Honolulu, Hawaii (Dec. 1963=100)	108.1	108.0	108.7	108.4	107.3	106.6	106.5	106.6	106.2	106.6	106.7	106.4	106.2	103.5	100.8	------
Houston, Tex.	116.6	116.9	116.6	117.0	117.0	117.0	115.8	114.4	114.1	114.8	114.3	113.6	113.2	109.2	*105.7*	------
Kansas City, Mo.–Kansas	118.0	117.8	117.5	118.7	119.0	118.1	117.1	116.9	116.0	116.5	116.7	116.4	115.3	111.3	*107.2*	------
Los Angeles–Long Beach, Calif.	113.7	114.0	113.7	114.2	113.7	113.8	112.8	112.4	113.0	113.5	113.4	112.9	112.1	110.7	108.2	------
Milwaukee, Wis.	------	------	114.3	------	------	116.2	------	------	113.5	------	------	112.6	------	107.7	*105.0*	------
Minneapolis–St. Paul, Minn.	113.0	112.9	112.6	114.2	113.4	113.3	112.3	111.6	111.7	112.4	112.7	111.3	110.3	107.1	*104.6*	------
New York, N.Y.–Northeastern N.J.	115.5	115.3	115.7	116.5	116.3	116.4	115.1	114.5	114.4	115.0	115.1	114.2	112.1	109.8	108.4	------
Philadelphia, Pa.–N.J.	113.7	114.0	113.5	114.5	114.5	114.9	113.2	112.9	112.5	113.4	112.8	111.9	109.5	107.2	105.2	------
Pittsburgh, Pa.	111.3	111.2	111.4	112.8	112.8	112.8	111.6	111.4	111.5	112.8	111.9	111.7	109.7	107.5	104.8	------
Portland, Oreg.–Wash. [5]	*115.7*	*115.6*	*116.0*	*115.6*	*116.1*	*115.6*	*114.7*	*115.5*	*114.7*	*114.0*	*113.4*	*113.0*	*111.8*	*109.5*	*107.1*	------
St. Louis, Mo.–Ill.	119.3	119.2	118.6	119.7	119.4	119.8	118.1	117.2	117.0	117.1	116.7	116.3	114.4	111.5	107.6	------
San Diego, Calif. (Feb. 1965=100)	------	------	106.6	------	------	106.8	------	------	106.3	------	------	106.6	------	102.7	------	------
San Francisco–Oakland, Calif.	114.4	114.4	115.1	115.0	114.7	114.2	113.6	113.6	113.9	114.7	114.6	113.8	112.9	110.2	107.7	------
Scranton, Pa. [5]	*112.6*	*113.1*	*113.2*	*113.8*	*113.7*	*113.7*	*112.6*	*112.5*	*112.1*	*113.1*	*112.8*	*112.1*	*110.8*	*107.7*	*105.6*	------
Seattle, Wash.	114.0	114.3	114.7	115.1	115.2	114.9	114.1	114.3	114.4	114.0	113.7	112.9	111.5	110.3	108.7	------
Washington, D.C.–Md.–Va.	114.7	114.7	113.5	115.1	115.6	115.8	114.3	114.1	113.6	114.2	113.8	113.2	110.6	108.4	106.0	------

[1] See footnote 1, table D–1. Indexes measure time-to-time changes in prices. They do not indicate whether it costs more to live in one area than in another.

[2] The areas listed include not only the central city but the entire urban portion of the Standard Metropolitan Statistical Area, as defined for the 1960 Census of Population; except that the Standard Consolidated Area is used for New York and Chicago.

[3] Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places) beginning January 1966.

[4] All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

[5] Old series.

[6] 10-month average.

TABLE D–4. Indexes of wholesale prices,[1] by group and subgroup of commodities

[1957–59=100, unless otherwise specified] [2]

Commodity group	1967	1966												Annual average	
	Jan.[3]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
All commodities	106.2	105.9	105.9	106.2	106.8	106.8	106.4	105.7	105.6	105.5	105.4	105.4	104.6	102.5	100.5
Farm products and processed foods	107.2	106.7	107.1	108.8	111.5	111.3	109.9	107.7	107.9	108.7	109.4	109.8	107.7	102.1	98.0
Farm products	102.8	101.8	102.5	104.4	108.7	108.1	107.8	104.2	104.5	106.4	106.8	107.4	104.5	98.4	94.3
Fresh and dried fruits and vegetables	101.9	101.3	104.2	97.9	110.4	97.7	107.0	99.7	103.3	111.0	101.7	98.0	97.5	101.8	103.2
Grains	100.4	101.5	98.0	98.9	104.6	105.6	103.1	94.9	93.6	91.2	90.8	92.9	92.4	89.6	94.1
Livestock and live poultry	100.2	95.5	96.9	103.8	106.7	109.4	107.1	108.5	110.4	112.4	114.2	116.7	112.6	98.9	84.7
Plant and animal fibers	70.9	71.0	70.9	71.4	71.7	72.3	90.5	90.3	90.3	89.9	89.7	89.5	89.6	91.1	98.3
Fluid milk	123.6	[4]124.0	124.4	125.8	125.4	124.1	119.3	112.6	111.0	111.9	112.7	111.5	108.4	103.5	102.0
Eggs	99.4	109.0	121.8	114.7	128.0	108.6	98.5	90.9	86.9	101.8	118.5	116.3	99.8	93.5	90.8
Hay, hayseeds, and oilseeds	123.8	124.5	122.9	121.5	126.3	139.2	135.2	122.6	120.2	116.9	115.6	116.6	113.5	112.9	110.1
Other farm products	100.5	100.5	98.7	100.8	102.3	102.5	101.3	101.1	101.4	102.5	102.1	102.3	102.5	97.6	98.6
Processed foods	110.7	110.6	110.7	112.4	113.8	113.8	111.7	110.6	110.5	110.6	111.5	111.8	110.3	105.1	101.0
Cereal and bakery products	117.6	118.0	118.7	118.7	118.9	118.9	115.5	114.0	113.0	112.6	112.2	112.1	111.8	109.0	107.8
Meats, poultry, and fish	105.6	104.4	104.2	108.1	112.2	111.1	110.0	109.9	110.9	110.9	113.3	114.9	112.7	101.0	90.8
Dairy products and ice cream	122.1	[4]122.3	122.6	124.5	124.2	124.0	119.8	116.5	114.9	114.8	115.0	113.0	110.9	108.5	107.8
Canned and frozen fruits and vegetables	106.2	[4]105.8	105.9	105.7	103.7	102.3	104.5	104.9	105.4	104.8	104.8	105.2	104.7	102.1	104.8
Sugar and confectionery	113.1	112.6	112.1	111.6	111.4	110.9	109.8	109.4	109.3	109.3	109.7	110.1	109.4	109.0	111.8
Packaged beverage materials	90.4	[4] 90.4	90.4	90.5	90.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.8	96.9
Animal fats and oils	95.6	97.5	105.6	108.9	115.9	120.9	106.3	105.8	107.7	115.2	121.8	126.2	125.8	113.4	95.4
Crude vegetable oils	94.2	98.1	99.2	100.1	112.4	127.5	113.0	105.6	105.6	106.7	104.3	107.6	106.5	100.9	84.5
Refined vegetable oils	92.7	101.2	102.2	97.0	107.6	118.4	109.8	104.7	108.5	111.3	112.0	116.0	116.1	97.0	82.2
Vegetable oil end products	106.3	[4]106.3	106.8	108.2	110.4	108.7	103.8	101.9	101.9	102.5	103.0	102.5	99.5	101.2	89.7
Miscellaneous processed foods	112.3	113.7	114.6	115.1	114.2	114.1	114.0	112.5	113.1	114.0	114.4	114.1	114.0	113.6	108.9
All commodities except farm products	106.6	106.3	106.3	106.4	106.6	106.6	106.2	105.8	105.7	105.3	105.2	105.1	104.6	102.9	101.2
All commodities except farm and foods	105.8	105.5	105.5	105.3	105.2	105.2	105.2	104.9	104.7	104.3	104.0	103.8	103.5	102.5	101.2
Textile products and apparel	102.0	[4]101.8	102.1	102.2	102.2	102.4	102.4	102.2	102.2	102.2	102.1	102.0	101.9	101.8	101.2
Cotton products	102.5	102.7	103.0	103.3	103.1	103.3	103.0	102.8	102.6	102.3	101.8	101.5	101.0	100.2	99.6
Wool products	104.5	[4]104.8	105.1	105.6	106.1	106.6	106.7	106.5	106.4	106.3	106.0	105.8	105.9	104.3	103.0
Manmade fiber textile products	87.1	[4] 86.9	[4] 87.7	88.1	[4] 88.6	89.6	90.1	90.0	89.9	90.5	90.8	91.0	91.3	95.0	95.8
Silk products	166.1	163.2	161.1	161.1	158.6	156.7	152.1	143.8	140.9	151.6	151.4	155.3	147.6	134.3	117.3
Apparel	105.9	[4]105.4	105.5	105.3	105.1	105.2	105.0	104.8	104.9	104.7	104.7	104.7	104.6	103.7	102.8
Miscellaneous textile products	121.2	119.7	119.1	118.8	120.3	121.2	123.3	124.1	124.7	125.1	126.3	124.2	124.7	123.0	117.9
Hides, skins, leather, and leather products	117.6	[4]117.3	117.5	118.7	119.9	121.2	122.7	122.9	122.8	120.6	118.7	117.8	116.0	109.2	104.6
Hides and skins	110.6	[4]109.2	114.3	120.8	134.2	141.2	156.4	161.0	163.0	148.8	147.8	152.8	140.0	111.2	87.5
Leather	116.9	116.2	114.1	117.5	121.8	124.9	126.0	126.6	125.1	122.4	123.3	118.0	116.6	108.1	102.9
Footwear	120.7	120.3	120.1	120.1	119.1	119.1	119.0	118.9	118.9	118.2	115.4	115.0	114.6	110.7	108.5
Other leather products	113.7	[4]114.2	115.1	115.6	115.1	116.0	116.6	115.7	115.4	114.4	112.5	111.6	110.3	106.1	103.1
Fuel and related products, and power	102.2	[4]102.0	102.7	102.6	102.2	102.0	101.4	101.5	100.4	100.0	99.9	100.3	100.5	98.9	97.1
Coal	102.4	[4]102.4	101.9	100.6	99.6	98.5	97.6	97.2	96.9	94.9	97.5	98.2	98.1	96.5	96.9
Coke	112.0	112.0	112.0	112.0	112.0	112.0	112.0	109.4	107.3	107.3	107.3	107.3	107.3	107.3	106.3
Gas fuels [5]	129.2	[4]127.4	130.6	130.7	129.2	128.9	128.3	128.5	128.3	129.2	128.2	128.9	128.2	124.1	121.3
Electric power [5]	100.8	[4]100.8	100.3	100.2	100.3	100.3	100.3	100.2	100.2	100.3	100.4	100.4	100.4	100.8	101.1
Petroleum products, refined	100.3	100.2	101.3	101.3	101.0	100.7	99.9	100.2	98.4	97.7	97.2	97.8	98.3	95.9	92.7
Chemicals and allied products	98.4	98.2	98.0	97.9	98.0	97.9	97.9	97.6	97.7	97.6	97.6	97.6	97.6	97.4	96.7
Industrial chemicals	96.6	96.4	96.0	95.9	95.8	95.8	95.9	95.8	96.0	95.6	95.2	95.2	95.1	95.0	94.2
Prepared paint	108.7	[4]108.5	107.8	107.3	106.8	106.8	106.8	106.8	106.2	106.2	105.9	105.9	105.9	105.4	104.7
Paint materials	90.6	90.6	90.4	90.2	90.3	90.5	90.4	89.9	90.2	90.4	89.8	89.5	89.5	89.8	91.0
Drugs and pharmaceuticals	94.5	94.7	95.0	95.0	94.8	94.7	94.5	94.3	94.1	94.1	94.4	94.5	94.4	94.4	95.0
Fats and oils inedible	94.2	95.1	91.6	94.5	103.8	105.5	105.3	101.6	102.5	104.0	106.4	110.0	113.1	112.7	96.8
Mixed fertilizer	106.4	[4]105.5	105.9	106.1	105.8	105.4	105.5	105.5	105.5	105.8	105.4	105.3	105.4	105.1	103.9
Fertilizer materials	106.8	105.0	105.0	103.7	102.5	102.5	104.2	104.8	106.6	105.5	104.7	104.7	103.8	103.5	100.1
Other chemicals and allied products	101.4	101.2	101.2	101.2	101.0	100.7	100.3	100.0	100.0	100.0	100.2	100.2	100.2	99.8	99.4
Rubber and rubber products	95.5	95.0	95.0	94.6	94.7	95.1	95.1	95.4	95.4	95.4	94.3	94.1	93.7	92.9	92.5
Crude rubber	87.5	87.6	87.9	87.4	87.9	88.8	89.0	89.5	90.0	90.0	91.2	91.0	90.0	90.0	90.6
Tires and tubes	94.8	93.9	93.9	93.4	93.4	93.9	93.9	94.4	94.4	94.4	91.1	91.1	91.1	90.0	89.0
Miscellaneous rubber products	99.7	99.3	99.2	98.9	99.0	99.0	99.0	98.9	98.7	98.7	98.7	98.5	97.9	97.1	96.9
Lumber and wood products	102.3	102.5	103.0	104.8	105.9	106.2	106.6	107.7	109.6	108.4	105.6	103.7	102.8	101.1	100.6
Lumber	104.3	104.5	105.6	108.0	109.5	110.2	110.5	112.0	113.2	110.8	107.2	105.6	104.3	101.9	100.7
Millwork	110.3	[4]110.3	110.3	110.8	110.9	110.9	110.7	110.6	110.4	109.6	109.3	108.4	107.9	107.7	108.5
Plywood	87.2	[4] 87.4	86.9	88.1	89.2	90.0	91.5	92.2	100.3	102.4	97.7	94.0	93.9	92.3	92.3
Pulp, paper, and allied products	103.1	103.0	103.0	103.1	103.1	103.2	103.2	103.0	102.7	102.3	101.8	101.3	101.2	99.9	99.0
Woodpulp	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.1	96.1
Wastepaper	82.6	90.5	92.7	98.8	102.9	106.7	113.2	112.7	112.0	110.3	108.7	105.5	105.8	99.4	92.4
Paper	108.5	108.5	108.5	108.4	108.4	108.4	108.2	108.0	107.1	106.0	105.4	105.4	105.2	104.1	103.6
Paperboard	97.3	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.1	97.0	96.7	96.7	96.4	96.4
Converted paper and paperboard products	103.7	103.2	103.1	103.0	103.0	102.8	102.7	102.4	102.2	102.2	101.6	100.9	100.8	99.3	98.3
Building paper and board	92.5	92.7	93.1	93.0	92.7	92.8	92.7	92.4	92.4	92.4	92.5	92.5	92.5	92.7	94.0

See footnotes at end of table.

TABLE D-4. Indexes of wholesale prices,[1] by group and subgroup of commodities—Continued

[1957-59=100, unless otherwise specified] [2]

Commodity group	1967	1966												Annual average	
	Jan.[3]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
All commodities except farm and foods—Continued															
Metals and metal products	109.4	[4]109.0	109.0	108.6	108.4	108.5	108.8	108.7	108.4	108.2	108.0	107.5	107.0	105.7	102.8
Iron and steel	103.0	[4]102.9	102.8	102.5	102.5	102.7	102.2	102.0	101.8	102.0	102.3	102.2	102.0	101.4	100.5
Nonferrous metals	121.8	120.5	121.0	120.3	119.9	120.4	122.9	123.2	122.5	122.1	120.8	119.5	118.3	115.2	105.9
Metal containers	111.8	110.2	110.2	110.1	110.1	110.1	110.1	110.1	110.1	110.0	109.8	109.8	109.8	107.6	105.5
Hardware	112.0	[4]111.9	111.5	110.9	110.3	110.1	109.8	109.8	109.6	108.4	108.3	107.4	107.3	106.0	104.8
Plumbing fixtures and brass fittings	110.5	110.5	110.5	110.6	110.6	110.0	110.0	108.5	107.9	107.1	105.7	104.9	104.8	103.1	100.9
Heating equipment	92.4	93.4	93.4	93.3	92.9	92.5	92.9	92.5	92.1	92.1	91.8	91.7	91.5	91.7	92.0
Fabricated structural metal products	104.6	104.9	104.8	104.6	104.4	104.2	104.2	104.1	103.8	103.7	103.1	102.6	102.3	101.2	99.3
Fabricated nonstructural metal products	113.8	113.2	113.1	112.7	112.4	112.3	111.2	111.2	110.9	110.9	110.9	110.5	110.0	109.4	108.5
Machinery and motive products	108.3	[4]108.0	107.7	107.1	106.3	106.2	106.0	105.9	105.8	105.2	105.0	104.7	104.4	103.7	102.9
Agricultural machinery and equipment	121.2	[4]120.8	120.4	118.5	118.2	118.3	118.5	118.4	118.2	118.1	118.0	117.8	117.3	115.1	112.9
Construction machinery and equipment	121.1	[4]121.0	120.6	119.8	119.4	118.9	118.9	118.9	118.9	118.5	117.9	117.5	116.9	115.3	112.4
Metalworking machinery and equipment	126.4	126.3	126.0	125.6	125.0	124.0	123.5	123.5	122.5	121.0	121.0	120.8	119.6	116.9	112.6
General purpose machinery and equipment	112.9	112.4	112.2	111.8	111.1	110.6	110.0	109.8	109.3	108.5	107.3	106.8	106.8	105.1	104.4
Miscellaneous machinery	108.1	108.1	107.8	107.4	106.8	106.6	106.5	106.0	105.9	105.7	105.8	105.6	105.4	105.2	104.5
Special industry machinery and equipment [5]	114.8	114.3	114.1	113.9	113.2	112.9	112.2	111.8	110.8	110.0	109.9	109.4	109.1	108.0	105.9
Electrical machinery and equipment	102.0	[4]101.5	100.7	99.5	99.2	99.1	99.0	98.8	98.9	98.4	98.2	97.8	97.0	96.8	96.8
Motor vehicles	101.7	101.7	101.7	101.7	100.1	100.5	100.7	100.7	100.9	100.2	100.3	100.4	100.5	100.7	100.5
Transportation equipment, railroad rolling stock [6]	102.7	[4]102.7	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	100.9	100.5
Furniture and other household durables	100.5	100.4	100.3	99.7	99.2	99.1	99.0	98.9	98.9	98.6	98.4	98.4	98.3	98.0	98.5
Household furniture	112.4	[4]111.8	111.5	110.3	109.8	109.4	109.1	108.9	108.9	108.3	107.2	107.2	107.0	106.2	105.3
Commercial furniture	108.7	[4]108.7	108.0	107.3	106.0	105.8	105.8	105.3	105.3	104.1	104.1	104.1	104.1	103.7	103.2
Floor coverings	94.6	[4] 96.2	96.6	96.6	96.6	96.6	96.8	97.1	97.5	97.5	97.5	97.7	97.7	97.7	99.4
Household appliances	89.2	89.2	89.2	88.9	88.7	88.8	89.1	89.4	89.4	89.3	89.1	89.0	89.0	89.2	91.3
Television, radio receivers, and phonographs	83.7	83.8	83.8	83.8	83.3	83.1	83.5	83.5	83.5	83.5	83.5	83.8	83.9	85.2	87.2
Other household durable goods	110.3	109.8	109.6	[4]109.5	[4]108.1	107.8	107.8	106.7	106.7	106.7	106.9	107.1	106.8	105.4	104.2
Nonmetallic mineral products	103.7	[4]103.3	103.3	103.2	103.0	102.7	102.7	102.5	102.4	102.3	102.1	102.1	102.0	101.7	101.5
Flat glass	103.3	103.3	103.3	102.1	100.6	99.7	100.3	100.2	100.2	99.5	99.2	99.9	99.9	100.9	102.4
Concrete ingredients	105.2	[4]104.3	104.2	104.3	103.9	103.8	103.7	103.6	103.7	103.8	103.8	103.7	103.6	103.2	102.8
Concrete products	104.4	[4]103.9	103.5	103.5	103.6	103.3	103.1	103.0	102.7	102.7	102.2	102.1	102.0	101.5	100.9
Structural clay products	107.4	[4]107.0	107.1	106.9	106.7	106.7	106.5	106.5	106.3	106.0	105.9	105.8	105.6	105.1	104.2
Gypsum products	103.5	103.5	103.5	102.7	102.7	102.7	102.7	102.7	102.2	101.4	101.4	101.4	101.4	104.0	108.2
Asphalt roofing [7]	95.7	95.7	97.6	97.6	97.6	97.6	97.6	94.4	94.4	94.8	94.8	94.8	94.6	92.8	88.8
Other nonmetallic minerals	101.3	101.3	101.3	102.0	101.8	101.8	101.7	101.2	101.7	101.8	102.1	101.7	101.8	101.3	101.5
Tobacco products and bottled beverages	110.3	[4]110.3	110.1	110.1	110.1	110.1	110.0	109.8	109.4	109.4	109.2	108.0	108.1	107.7	107.4
Tobacco products	110.3	110.3	110.2	110.3	110.3	110.3	110.3	110.3	110.3	110.2	109.8	106.6	106.6	106.2	106.0
Alcoholic beverages	101.4	[4]101.4	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.1	100.8	100.7
Nonalcoholic beverages	132.3	132.2	132.2	132.2	132.2	132.2	131.8	131.0	128.5	128.5	128.5	128.5	128.5	128.3	127.0
Miscellaneous products	121.2	120.5	118.5	118.2	120.4	121.1	120.5	115.7	115.1	113.0	113.1	116.0	114.3	111.0	109.2
Toys, sporting goods, small arms, ammunition	105.1	104.8	104.8	105.0	104.8	104.9	104.5	103.7	103.7	103.7	103.3	103.3	103.2	102.7	101.0
Manufactured animal feeds	132.9	132.0	128.4	128.1	132.3	133.6	132.6	124.1	123.1	119.2	119.6	124.8	121.8	116.3	113.9
Notions and accessories	100.8	100.8	100.8	100.8	100.8	100.8	100.8	101.8	100.8	99.8	99.8	99.8	99.1	99.1	99.1
Jewelry, watches, and photographic equipment	107.0	[4]106.3	106.1	105.2	105.2	105.3	105.5	105.2	105.1	105.1	105.1	105.1	105.0	104.4	103.5
Other miscellaneous products	107.0	[4]106.9	107.0	106.0	105.9	105.7	105.4	105.2	105.2	105.0	104.7	104.9	105.0	103.7	102.5

[1] As of January 1961, new weights reflecting 1958 values were introduced into the index. See "Weight Revisions in the Wholesale Price Index 1890–1960," *Monthly Labor Review*, February 1962, pp. 175–182.

[2] As of January 1962, the indexes were converted from the former base of 1947–49=100 to the new base of 1957–59=100. Technical details and earlier data on the 1957–59 base furnished upon request to the Bureau.

[3] Preliminary.

[4] Revised.

[5] January 1958=100.

[6] January 1961=100.

[7] Formerly titled "prepared asphalt roofing."

TABLE D–5. Indexes of wholesale prices for special commodity groupings [1]

[1957-59=100, unless otherwise specified] [2]

Commodity group	1967	1966												Annual average	
	Jan.[3]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
All foods	109.6	109.8	110.6	111.3	114.0	112.4	110.9	109.0	109.1	110.2	110.9	110.8	108.9	104.5	100.8
All fish	129.1	[4]125.0	125.0	131.3	131.4	129.5	129.7	127.2	126.9	126.5	126.7	123.2	124.5	112.8	107.4
All commodities except farm products	106.6	106.3	106.3	106.4	106.6	106.6	106.2	105.8	105.7	105.3	105.2	105.1	104.6	102.9	101.2
Textile products, excluding hard and bast fiber products [5]	97.5	[4]97.5	98.0	98.4	98.6	99.0	99.1	98.8	98.7	98.8	98.6	98.5	98.3	99.1	98.9
Bituminous coal—domestic sizes	103.2	[4]102.9	102.0	101.2	99.4	97.4	95.6	94.5	93.6	92.9	97.7	100.0	100.0	96.6	96.7
Refined petroleum products	100.3	100.2	101.3	101.3	101.0	100.7	99.9	100.2	98.4	97.7	97.2	97.8	98.3	95.9	92.7
East Coast markets	99.9	99.9	98.1	98.1	98.1	96.4	96.4	96.3	96.3	96.3	98.2	98.2	98.2	95.3	93.6
Midcontinent markets	98.5	97.9	99.5	98.6	100.2	100.2	100.2	100.2	97.1	97.7	93.7	98.9	98.5	97.6	89.7
Gulf Coast markets	102.5	102.5	105.1	105.1	104.9	104.5	102.4	104.1	100.7	100.2	98.6	98.6	99.7	95.1	94.0
Pacific Coast markets	94.8	94.8	94.4	96.4	90.4	90.4	90.4	87.8	89.4	89.4	89.4	86.8	88.3	90.6	87.4
Midwest markets [6]	92.7	92.7	92.7	92.0	93.3	93.3	93.3	93.3	92.0	89.0	93.3	93.9	93.8	91.7	88.0
Soaps	113.8	113.8	113.8	113.8	113.8	113.8	113.7	113.7	113.7	113.7	113.7	113.7	113.7	112.3	107.1
Synthetic detergents	101.2	101.2	101.2	101.2	101.2	101.2	100.5	99.3	99.3	99.3	99.7	99.7	99.7	100.5	99.6
Pharmaceutical preparations	96.8	97.1	97.5	97.3	97.2	97.0	96.8	96.6	96.2	96.2	96.5	96.5	96.5	96.5	97.1
Ethical preparations [6]	93.4	93.4	94.0	93.8	93.8	93.7	94.0	93.8	94.1	94.1	95.0	95.0	94.9	94.7	95.4
Anti-infectives [6]	73.8	73.8	76.0	76.0	76.0	76.0	77.2	77.2	78.3	78.3	82.3	82.3	82.3	82.0	85.4
Anti-arthritics [6]	103.7	103.7	103.7	103.7	103.7	103.7	103.7	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6
Sedatives and hypnotics [6]	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3	115.3	113.3
Ataractics [6]	101.4	101.4	101.4	101.4	101.4	101.4	101.4	101.4	101.4	101.4	100.0	100.0	100.0	100.0	100.0
Anti-spasmodics and anti-cholinergics [6]	105.6	105.6	105.6	105.6	105.6	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	100.2
Cardiovasculars and anti-hypertensives [6]	93.5	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	97.6
Diabetics [6]	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8
Hormones [6]	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	102.3	100.6
Diuretics [6]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dermatologicals [6]	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7
Hematinics [6]	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.6	110.0	108.8
Analgesics [6]	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.5	101.8
Anti-obesity preparations [6]	102.9	102.9	102.9	102.9	102.9	102.9	102.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cough and cold preparations [6]	105.4	104.9	104.9	101.5	101.5	104.9	104.9	104.9	104.9	104.9	104.4	104.4	102.1	102.9	103.5
Vitamins [6]	89.4	89.4	89.4	89.4	89.4	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	87.7
Proprietary preparations [6]	106.9	107.5	107.5	107.5	107.0	106.8	105.3	105.2	103.0	103.0	102.2	102.1	102.1	102.7	103.1
Vitamins [6]	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3
Cough and cold preparations [6]	103.8	104.4	104.4	104.4	102.3	102.3	102.3	103.9	101.2	101.2	100.5	99.9	99.9	100.9	101.0
Laxatives and elimination aids [6]	108.2	109.6	109.6	109.6	108.9	108.9	108.0	108.0	107.0	107.0	107.0	107.0	107.0	106.0	105.4
Internal analgesics [6]	108.4	108.4	108.4	108.4	108.4	107.9	105.4	104.8	104.8	104.8	104.8	102.5	102.5	102.3	102.2
Tonics and alteratives [6]	97.9	106.0	106.0	103.9	101.1	101.1	103.2	100.2	92.8	92.8	92.8	92.8	92.8	95.0	100.2
External analgesics [6]	104.9	106.9	106.9	106.9	107.5	107.5	107.9	107.9	105.8	105.8	105.8	105.8	105.8	105.2	103.1
Antiseptics [6]	116.3	116.3	116.3	116.3	116.3	116.3	111.0	111.0	101.8	101.8	96.4	101.8	101.8	104.9	108.6
Antacids [6]	103.6	103.6	103.6	103.6	103.6	103.6	103.0	103.0	103.0	103.0	102.8	102.8	102.8	102.9	103.0
Lumber and wood products (excluding millwork)	100.6	[4]100.8	101.6	103.7	105.1	105.8	106.4	107.7	110.3	109.0	105.1	103.0	102.0	99.8	98.9
Softwood lumber	100.7	[4]100.7	101.4	103.2	104.6	105.2	105.8	107.5	109.0	106.5	102.6	100.9	99.9	99.1	99.3
Pulp, paper, and allied products (excluding building paper and board)	103.5	103.4	103.4	103.5	103.6	103.6	103.6	103.4	103.1	102.7	102.2	101.7	101.5	100.2	99.3
Special metals and metal products [7]	107.8	107.5	107.5	107.2	106.6	106.8	107.0	106.9	106.8	106.5	106.3	106.0	105.7	104.7	102.6
Steel mill products	105.4	105.3	105.2	105.1	105.1	105.0	104.5	104.5	104.3	104.3	104.3	104.2	104.1	103.3	102.8
Machinery and equipment	111.0	[4]110.7	110.2	109.4	108.9	108.5	108.3	108.1	107.8	107.2	106.9	106.5	106.0	105.0	103.8
Agricultural machinery (including tractors)	123.1	[4]122.7	122.4	120.2	119.9	120.0	120.2	120.1	120.1	119.9	120.0	119.6	119.1	116.6	114.3
Metalworking machinery	128.2	[4]128.2	127.8	127.2	126.4	125.2	124.4	124.5	122.8	121.1	120.9	120.7	120.0	117.4	112.6
All tractors	122.8	[4]122.7	122.3	120.7	120.3	120.0	120.0	120.0	120.0	119.6	119.4	119.1	118.8	116.8	114.4
Industrial valves	122.4	[4]122.1	[4]121.9	121.0	118.8	118.4	117.4	116.7	115.7	114.2	110.5	109.4	109.3	105.7	107.2
Industrial fittings	101.5	99.1	99.1	100.5	100.5	99.1	94.8	93.9	93.9	92.9	92.9	92.9	91.9	90.8	92.7
Anti-friction bearings and components	83.5	83.7	83.7	83.4	83.2	83.2	83.1	83.1	83.0	83.0	83.0	83.0	84.0	84.1	89.0
Abrasive grinding wheels	94.7	94.7	94.7	94.7	94.7	94.7	94.1	93.3	93.3	93.3	93.3	93.3	93.3	94.2	96.1
Construction materials	104.1	[4]104.0	104.0	104.3	104.3	104.5	104.6	104.8	105.1	104.3	103.2	102.4	101.9	100.8	99.6

[1] See footnote 1, table D–4.
[2] See footnote 2, table D–4.
[3] Preliminary.
[4] Revised.
[5] Formerly titled "textile products, excluding hard fiber products."
[6] New series. January 1961=100.
[7] Metals and metal products, agricultural machinery and equipment, and motor vehicles.

TABLE D–6. Indexes of wholesale prices,[1] by stage of processing and durability of product

[1957–59=100][2]

Commodity group	1967	1966												Annual average	
	Jan.[3]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	1965	1964
All commodities	106.2	105.9	105.9	106.2	106.8	106.8	106.4	105.7	105.6	105.5	105.4	105.4	104.6	102.5	100.5
Stage of processing															
Crude materials for further processing	102.2	100.8	101.1	103.6	106.1	107.4	107.8	105.6	105.7	106.3	106.9	107.5	105.2	98.9	94.1
Crude foodstuffs and feedstuffs	104.3	[4]102.3	102.5	106.2	109.9	111.2	109.1	106.0	106.5	107.5	108.3	109.6	106.8	98.3	91.9
Crude nonfood materials except fuel	97.3	97.4	97.6	98.2	98.9	100.2	105.7	105.1	104.5	104.5	104.6	103.8	102.2	99.8	97.8
Crude nonfood materials, except fuel, for manufacturing	96.6	96.8	97.0	97.7	98.5	100.0	106.1	105.4	104.7	104.7	104.8	104.0	102.2	99.5	97.4
Crude nonfood materials, except fuel, for construction	105.2	104.3	104.3	104.3	103.9	103.8	103.7	103.6	103.7	103.9	103.8	103.8	103.6	103.2	102.8
Crude fuel	108.9	[4]108.2	108.9	108.1	107.0	106.2	105.5	105.3	105.0	104.0	105.2	105.9	105.6	103.3	102.5
Crude fuel for manufacturing	108.8	[4]108.2	108.9	108.1	107.0	106.2	105.5	105.3	105.0	103.9	105.1	105.8	105.5	103.2	102.4
Crude fuel for nonmanufacturing	109.0	[4]108.3	109.1	108.3	107.2	106.4	105.6	105.5	105.2	104.2	105.5	106.2	105.9	103.5	102.8
Intermediate materials, supplies, and components	105.7	105.4	105.3	105.3	105.6	105.8	105.4	104.9	104.8	104.3	103.9	103.8	103.4	102.2	100.9
Intermediate materials and components for manufacturing	104.7	104.5	104.4	104.3	104.6	104.8	104.4	104.1	104.1	103.7	103.4	103.2	102.8	102.0	100.4
Intermediate materials for food manufacturing	110.0	110.9	111.2	111.6	113.6	114.8	111.9	110.0	109.8	110.1	110.8	111.1	109.7	106.6	104.0
Intermediate materials for nondurable manufacturing	99.3	99.2	99.2	99.5	99.8	100.1	100.2	100.0	99.7	99.4	99.2	99.0	98.9	98.7	97.8
Intermediate materials for durable manufacturing	107.6	107.1	107.0	106.8	106.8	106.9	106.6	106.7	106.8	106.6	106.1	105.8	105.5	104.6	102.5
Components for manufacturing	107.6	[4]107.1	106.6	105.9	105.5	105.4	105.1	105.0	104.8	104.1	103.3	102.9	102.5	101.3	99.7
Materials and components for construction	104.4	[4]104.3	104.3	104.5	104.6	104.6	104.5	104.5	104.8	104.3	103.4	102.7	102.3	101.4	100.6
Processed fuels and lubricants	101.8	101.7	102.5	102.6	102.1	102.1	101.7	101.8	100.7	100.3	99.8	100.2	100.7	99.5	98.1
Processed fuels and lubricants for manufacturing	103.0	102.9	103.4	103.5	103.1	103.1	102.8	102.8	101.9	101.7	101.2	101.5	101.9	101.0	99.8
Processed fuels and lubricants for nonmanufacturing	99.8	[4]99.8	100.8	100.9	100.5	100.4	99.9	100.2	98.7	97.9	97.4	97.9	98.7	97.1	95.2
Containers, nonreturnable	106.1	105.3	105.2	105.1	104.9	104.9	105.1	105.1	105.1	105.1	104.8	104.3	104.2	102.1	100.2
Supplies	113.0	112.6	111.6	111.5	112.8	113.3	112.7	110.0	109.5	108.3	108.0	109.3	108.2	106.0	105.0
Supplies for manufacturing	109.2	[4]109.2	109.5	109.5	109.7	109.5	109.6	109.2	108.9	108.3	108.0	107.7	107.3	106.1	105.5
Supplies for nonmanufacturing	113.8	113.3	111.8	111.6	113.4	114.1	113.3	109.7	109.2	107.6	107.4	109.3	108.0	105.4	104.2
Manufactured animal feeds	125.7	124.8	121.2	120.9	125.0	126.3	125.0	116.9	116.0	112.4	112.7	117.7	114.8	109.7	107.4
Other supplies	104.5	104.2	104.0	103.9	104.3	104.6	104.1	103.4	103.0	102.8	102.3	102.1	101.9	100.9	100.4
Finished goods (goods to users, including raw foods and fuels)	107.7	107.6	107.8	107.8	108.1	107.5	107.0	106.4	106.2	106.3	106.4	106.3	105.6	103.6	101.8
Consumer finished goods	106.7	106.6	107.0	107.2	107.8	107.1	106.4	105.7	105.6	105.9	106.1	106.0	105.2	102.8	100.9
Consumer foods	110.5	110.5	111.3	112.2	114.5	112.8	111.2	109.5	109.6	110.7	111.5	111.5	109.5	104.5	100.6
Consumer crude foods	106.1	[4]108.0	112.7	108.1	116.6	105.3	106.0	99.3	99.9	107.8	107.6	105.6	101.0	100.2	99.8
Consumer processed foods	111.2	110.9	111.0	112.8	114.2	114.0	112.0	111.1	111.1	111.2	112.1	112.4	110.8	105.2	100.7
Consumer other nondurable goods	105.8	105.5	105.7	105.5	105.4	105.2	105.0	104.9	104.5	104.3	104.1	104.0	103.9	102.8	101.6
Consumer durable goods	101.4	101.3	101.2	100.9	100.0	100.1	100.2	100.1	100.2	99.8	99.7	99.7	99.7	99.6	99.9
Producer finished goods	110.3	[4]110.2	109.8	109.1	108.4	108.3	108.1	107.9	107.6	107.0	106.8	106.6	106.2	105.4	104.1
Producer finished goods for manufacturing	113.9	[4]113.7	113.4	112.7	112.0	111.7	111.4	111.2	110.8	110.0	109.8	109.6	109.1	108.0	106.2
Producer finished goods for nonmanufacturing	106.7	[4]106 6	106.1	105.4	104.8	104.7	104.7	104.6	104.4	103.8	103.7	103.5	103.3	102.9	102.0
Durability of product															
Total durable goods	107.4	[4]107.1	106.9	106.6	106.2	106.2	106.2	106.2	106.1	105.7	105.3	104.9	104.6	103.7	102.4
Total nondurable goods	105.3	104.9	105.1	105.8	107.1	107.0	106.4	105.2	105.0	105.1	105.3	105.5	104.5	101.5	99.1
Total manufactures	106.5	106.2	106.2	106.3	106.4	106.4	106.0	105.6	105.5	105.1	105.0	104.9	104.4	102.8	101.1
Durable manufactures	107.5	[4]107.2	107.0	106.7	106.3	106.3	106.1	106.1	106.1	105.6	105.1	104.8	104.5	103.7	102.5
Nondurable manufactures	105.4	[4]105.2	105.3	105.8	106.5	106.5	105.8	105.1	104.8	104.6	104.7	104.8	104.3	101.9	99.7
Total raw or slightly processed goods	104.8	[4]104.0	104.7	106.0	108.4	108.2	108.2	105.8	105.8	107.0	107.3	107.5	105.3	100.7	97.5
Durable raw or slightly processed goods	104.1	103.9	106.3	105.6	104.4	105.0	112.4	112.4	110.1	113.9	114.7	111.4	108.2	104.7	98.0
Nondurable raw or slightly processed goods	104.8	104.1	104.6	106.0	108.7	108.4	108.0	105.4	105.6	106.6	106.9	107.3	105.1	100.5	97.5

[1] See footnote 1, table D–4.
[2] See footnote 2, table D–4.
[3] Preliminary.
[4] Revised.

NOTE: For description of the series by stage of processing, see "New BLS Economic Sector Indexes of Wholesale Prices," *Monthly Labor Review*, December 1955, pp. 1448–1453; and by durability of product and data beginning with 1947, see *Wholesale Prices and Price Indexes, 1957* (BLS Bulletin 1235, 1958).

NOTE: Table E–1 (Work Stoppages) including January 1967 figures will appear in the April issue.

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